ORIENTATION FOR ELEMENTARY TEACHER-EDUCATORS ON IDENTIFICATION, ASSESSMENT AND PLACEMENT OF SC/ST DISABLED CHILDREN OF WEST BENGAL

PHASE - II

From

5 7. 1993 TO 9. 7. 1993



Dr. TAPATI DUTTA

PROGRAMME DIRECTOR

REGIONAL COLLEGE OF EDUCATION

BHUBANESWAR

TABLE OF CONTENTS

Forewards
Brief Report
List of Resource Persons
List of Participants
Time Table

WORKING PAPERS

National Pokicy on Education Dr.R.C.Das
Children with Special Educational Dr.T.Dutta
Needs

Education of Children with ____b_litieBr.S.K.Goel Disabilities

Early Identification of Educational Dr.J.Narayan Problem.

Psy-educational Characteristics of MR Dr. T.Dutta

Prevention of Mental Handicap Dr.S.K.Goel

Learning Disability, Concept, Dr. K.C.Panda Etiology, Characteristics, Indentification, Instruction

Mainstreaming Education of the Mr. P.Sahu Hearing Impaired Children

Locomotor Disability Mr. J.Panda

Physio Theropy Mr.A.G.Dandapa ni

Curriculum and Teaching Dr. R.C.Das Principles and Practices

Instructional Resources Dr. T.Dutta

Learning and Teaching Dr. T.Dutta

Classroom and Behaviour Management Dr. T.Dutta

Role of Regular and Resource Dr.S.C.Chaturved
Teachers

APPENDICES

Blind Boys Academy, Narendrapur National Institute for the Orthopacdically Handi-capped Cal. Calcutta Blind School Badhipeel Calcutta Deaf School Madras Developmental Programming System.

FOREWORDS

The Second Phase of "The Orientation Programme For Elementary Teacher Education on Identification Assessment And Placement of 3C/GT Disabled Children of .est Bengal" was organised in collaboration with West Bengal Government, at Mar n pur, 24 South Parganas, from 5.7.93 to 9.7.93. This or oranne was specially organised on the request of the West Bengal Government and on the demand from the participants. During those five days, along with the theoretical discussions, the participants were taken to NIOH, Calcutta Blind School, Calcutta Deaf and Dumb School, 2 habilitation Centre For Children, Bland Boys Academy and Bodhipeet for practical exposure. Visits to v-rious Institutions had helped to develop more skills and competencies in the participants in dealing with special education as a part of Primary Teachers' Training programme.

The programme was conducted under the directorship of Dr. Tapati Dutta, quite effectively. She has taken care to deal with all the areas of Disabilities in the report so that the participants can confidently discharge their duties while instructing plementary teachers.

Mr. G. Bagchi, D.D.S.E. who attended the programme throughout has not only appreciated the programme hut. made a request for organising 2 such programmes in West Bengal for the benefit of touchers.

It is thus felt that such programmes are getting momentum and your suggestions will be appreciated.

Prof.K.C.Panda Principal

BRIEF. REPORT

Educators on Identification, Assessment And Placement of SC/ST Disabled Children of Nest Bengal", Phase II was held from 5.7.93 to 9.7.93 at Ramakrishna Mission Shikhya Parisad, Narendrapur, 3 ath 24 Parganas. Swami Asaktananda, Secretary, Ramakrishna Mission, Ashrama, Narendrapur, presided over the inaugural function. In his inaugural address he highlighted the facilities available for visually impaired poys in Blind Boys Academy. He also mentioned about the new village based projects taken up by the mission for educating and rehabilitating not only the disabled children, but also belonging to the children/socially disadvantaged classes.

Mr. Gopal Bagchi, Deputy Director of School Education welcomed the team and the participants on behalf of West Bangal Government. He expressed his gratitude and appreciation for organizing this programme in West Bengal for its utility and urgency.

Dr. T.Dutta, the Director of the programme welcomed the guests and the participants on behalf of the R.C.E. and N.C.E.R.T. She pointed out that the prime objective of this programme is to develop skills, and competencies for teaching 'Special Education' in Primary Teachers Training Programme. She emphasised that most of the theoritical discussions were over in the first phase of the programme at PTTI, Beraj gulia during July,1992. Reading materials have already been supplied to them well in advance so that they can come forward with their doubts. The present 5 days is over loaded with lecturers, group discussions and visits to various institutions for practical exposure.

Mr. P. Sahu briefed abo t the assignmentato be submitted by the participants about the visits to different institutions.

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Or. S.K.Goel spoke on importance of practicals in special education and extend divote of thanks.

During the programme lectures to arranged on some important topics, Group discussions were conducted aftir the visit to the various institutions.

Mr.G.Bagchi, DDSE, Mr.I.Sinha, Deputy Director and Mrs. Bandana Das the Course-ecordinator from West Bengal were present all the five days and accompanied the team during visits.

Sri Shib Sankar Chakravorty, Director, Lokshiksha Parisad, Narendrabur rusided over the Valedictory function. Dr. T.Du Sa, the programme director presented the brief report. Cartaficates were distributed. Sri Chakravorty in his valedict ry address narrated some of his practical experiences while working with the Disabled Children. Sri Ranjit Kumer Mukhurjee described his long experiences at Marendra ur. Mr.G. Bagchi addressed t'me participants and expressed 'nat the special education (IED) is going to be included in the primary teachers' training syllabus and appreciated the new venture. He 3 also requested the Programme Director to conduct at least two more programmes of this kind one in North B, ngal and the other in Eastern part of West Bengal for wider coverage. Mr. P.Sahu extended the vote of thanks. Mrs. H.D. thanked the Whole tera, guests and the participants on benalf of the West Bungal Government.

(Dr. T. Dutta)

EXTERNAL RESOURCE PERSONS

- 1. Mr. Gopal Bagchi,
 D.D.S.E.,
 Bikash Bhawan,
 7th Floor
 Salt Lake city, Sector-II
 Calcutta-700091.
- 2. Mr. Nilyananda Sinha,
 D.D.S.E.,
 Bikash Ehawan,7th Floor,
 Salt Lake city,
 Sector-II
 Calcutta-700091.
- 3. Mrs. Bandana Das,
 Principal,
 Teachers' Training Dept.
 Gokhale Memorial Girls' School
 and College,
 1/1 Harish Mukherjee Road,
 Calcutta 700020
- 4. Mr. K.Das, Officer-in-charge, 293, A.P.C. Road, Calcutta-9

INTERNAL RESOURCE PERSONS

- 1) Dr. Tapati Dutta, Programme Director, R.C.E., Bhubaneswar.
- 2) Dr.S.K.Goel, Reader in Special Education, R.C.E., Bhubaneswar.
- 3) Mr. P.Sahu, Lecturer in Special Education, R.C.E., Bhubaneswar.

SPECIAL ORIENTATION OF ELEMENTARY TEACHER EDUCATORS IN IDENTIFICATION, ASSESSMENT AND PLAGEMENT OF DISABLED CHILDREN OF WEST LENGAL. (SECOND PHASE).

LIST OF PARTICIPANTS

- Sri Manindra Kumar Bhattacharyaya, Lecturer,
 Majshananagar Govt.P.T.T.T., P.O. Krishnanagar, Dt.Nadia
- Sri Ananda Kumar Biswas, Lecturer, Sargachi Govt.P.T.T.I., P.O. Sargachi, Dt.Murs.idabad.
- 3. Sri Gopal Ranjan Das, Lecturer, Md.Bazar Govt.Spon P.P.T.I. P.O. Md.Bazar, Dt.Birbhum.
- 4. Md.Olimuzzaman, Lecturer, Sabrakona Govt.P.T.T.I. P.O. Sabrakona, Dt.Bankura
- 5. Sri Biswarup Banerjee, Lecturer Berhampore Govt.P.T.I. P.O.Berhampore, Dt.Mrd.
- 6. Sri Dilip Kumar Basu, Lecturer, Purulia Govt. Spon. P.T.T.I. P.O. Purulia, Dt. Purulia.
- 7. Sri Subir Kumar Ghosh, Lecturer, Banipur Unit-II Govt.P.T.T.I. P.O. Banipur, Dt.N/24 Pgs.
- 8. Sri Ranjit Kumar Koley, Lecturer, Saktigarh P.T.T.I. J. it-I. P.O. Barsul, Dt.Burlwan.
- 10. Sri Satyanarayan Bhowmick, Lecturer, Eauli Govt. P. T.I. P.O. Belda, Dt. Midnapore.
- 11. Sri Swadesh Ranjan Roy, Lecturer, Dharmada Govt.P.T.T.I., P.O. Dharmada, Dt. Nalia.
- 12. Smt.Sabita Deb Roy, Lecturer, Banipur Unit-I Govt.P.T.T.I. P.O. Danipur, Dt.N/24 Pgs.

- 13. Smt.Sandhya Chowdhury,
 Asst.Teacher,
 Salkia Govt.P.T.T.I.,
 P.O. Salkia, Dt.Howrah.
- 14. Sri Haradhan Dhara,
 Lecturer,
 Jagatballarpur Govt.P.T.T.
 P.O.Jagatballarpur
 Dt. Howrah.
- 15. Sri Hemendra Ch.Pandit, Lecturer, Rahara R.K.M.Boys Home P.T.T.I. P.O. Rahara, Dt.N/24 Pgs.
- 16. Sri Tapan Kumar Chakrabort
 Lectuter,
 Jagatballavpur Govt.P.P.T.
 P.O.Jagatballavpur,
 Dt. Howrah.
- 17. Smt. Gayatri Sen.

 Lecturer,

 Prajnananda Govt. P.T.T.I.

 P.O.Barajagulia, Dt. Nadia.
 - 18. Smt.Purabi Banerjee, Lecturer, Berhampore Govt. P.T.T.I. P.O.Berhampore, Dt.Msd.
- 19. Smt. Esha Khan,
 Lecturer,
 United Missionary P.T.T.I.
 1, Ballygunj Circular Rd.
 Calcutta.
- 20. Sri Sukumar Das, School Education, DTE, West Bengal, Bikash Bhawan, Salt Lake, Calcutta-91.
- 21. Sri Subodh Ku.Chakraborty, A.I/S.School Edn.DTE, School Education DTE, West Bengal, Bikash Bhawan, Salt Lake, Calcutta-91.
- 22. Md.Jamaluddin, Lecturer, Shiksha Niketan Govt.PTTI, P.O.Kalamabagram, Dt.Burdwa
- 23. Smt.Sandhiva Das, Lecturer, Prajananda Govt.P.T.T.I. P.O.Barajagulia, Dt.Nadia.
- 24. Sri Bimal Kunti Saha, Frincipal,

TIME TAJL:

D a t e	Time	Topic
5.7.93	08.00 09.00	Registration
	09.00 - 10.00	Inam we tion
	10.00 - 11.00	Chi! is with special need, leballin and management.
	11.00 - 12.00	Special Laucation and Curriculum Flancing.
•	12.00 - 12.30	LJACH
	12.00 - 02.00	Vi.le to Blind Boys' Academy, Norse rapur accompanied by Dr. L.Durta, Dr. P. Goel, Mr. P. Sahu, Mr. L. gchi, Mrs. B. Das.
	02.00 - 03.00	Discussion and Reaction of part dipants with Dr.T.Dutta, Dr.JGoel and Mr.P.Sahu.
	03.00 - 04.00	Role of Regular and Resouce Tead ors.
	04.00 - 05.00	NPE : à Special Education.
6.7.93	09.00 - 10.00	Physic therapy and occupational therepy.
	10.00 - 11.00	Earl, ^T dentification of educa- tional problems.
	11.00 - 12.00	Le thing Disability.
	12.00 - 02.30	Visi. to NIOH accompanied by D _r .T.Dutta, D _r .S.K.Goel, M _r .P.Sahu, MrDagchi, M _r s.B.Das, Mr. T.Binha.
	02.30 - 03.30	Discussion with Dr.T.Dutta, Dr.S.K.Goel, Mr.P.Sahu.
	03.30 - 04.30	Curriculum Adjustment and Ada attion to SEN.
	04.30 - 05.30	Psycho-educational characteristics of It.
7.7.93	09.00 ~ 10.00	Disorder of speech, language and he ring.
	10.00 - 11.00	Ails and equipments.
	11.00 - 12.00	IED for Visually Impaired.
	12.00 - 02.00	Visit to Calcutta Blind School.
	02.00 - 03.00	Visit to Mehabilitation Centre for children. Accompanied by Dr. 1. Junta, Dr. S.K. Goel, Mr. P. Sahu, Mr. J. Dagchi, Mrs. B. Das, Mr. N. Sinha.
	03.00 - 04.00	Discussion (T.Dutta, SKG, PS)
	04.00 - 05.00	Plus Curriculum,
مر 1	05.00 - 06.00	Hearing Impairement and IMD.

C.7.93	09.00 - 10.00	Locomotor Disability
	10.00 - 11.00	Learning and Teaching.
	11.00 - 12.00	Teaching to EMR
	12.00 - 01.30	Visit to Calcutta Deaf and Dumb school.
	01.30 - 03.00	Visi to Dodhipeet. Accompanied by Jr.'.Lutta, Dr.S.K.Goel, Ir.J.Sahu, Ar.G.Bagchi, Mrs.B.Das, Mrs. B.Das,
	03.00 - 04.00	Disca sion with Dr.T.Dutta, D _r .3Goel, M _r .P.Sahu.
•	04.00 - 05.00	Perimo language to EMR.
	05.00 - 06.00	$\mathtt{Car}_{\mathfrak{f}}$, $\mathtt{Maucation}$ and $\mathtt{management}$
9.7.93	09.00 - 10.00	Instructional Resources
	10.00 - 11.00	Prevy Lion of Mental Retardation.
	11.00 - 12.00	Clas.room and behaviour management
	12.00 - 01.00	Teaching dearing impaired children.
	01.00 - 02.00	LUNCA
•	02.00 - 03.00	Feedback and Group Discussion.
	03.00 - 04.00	Valed; ctory
	04.00 - 05.00	Disbursement of TA/DA.

NATIONAL POLICY ON LOUCATION

Dr.R.C.Das

1. National Policy on Education

Part III : National System of Equcation

- 3.2 The Concept of a National System of Education implies that, upto a grain level, all students, irrespective of caste, creed, location or sex, have access to education of a comparable quality.
- 3.4 The National system will be based on a national curricular framework which contains a common care along with other compon ats that are flexible.

Part IV : Equestion for Equality

Disparities

- The new policy will lay special emphasis on the removal of disparities and to equalise educational opportunity by attending to the specific needs of those who have been denied equality so far.
- 4.9 The Handicapped

The objective should be to integrate the physically and mentally mandicapped with the general community as equal partners to prepare them for normal growth and to enable them to face life with courage and confidence. he following measures will be taken in this regard:

- i) Wherever it is fe sible, the education of children with motor handicaps and other mild handicaps will be common with that of others.
- ii) Special schools with hostels will be provided as far as possible at district headquarters, for the severely handicapped children.

- iii) Adequate arrangements will be made to give vocational training to the disabled.
 - iv) Teachers' training programmes will be reoriented, in particular for teachers of
 primary classes to deal with the special
 difficulties of the undicapped children; and
 - v) Voluntary effort for the education of the disalled will be encouraged in every possible manner.

Elementary Education

5.5 The new thrust in elementary education will emphasize two aspects: (i) universal enrolment and universal retention of children upto 14 years of age, and (ii) substantial improvement in the quality of education.

Programme £ Action (POA)

Of the estimated 12 million disabled persons
4.3 million are in the age group 6-14 (universalisation
of primary education age group). To this may be added
1.4 million of earlier age-group which has relevance
for early identification and or paration. This does not
include learning disabled child, on who are normal in
intelligence and have no visual or hearing handicap but
have specific learning defici acies in reading, writing
and/or arithmetic due to problems in psychological
processes like perception, memory and information
processing.

The POA suggests that mildly handicapped children who can receive education in common with other normal children should be brought within the

educational system by 199) in 195. For severely nandicapped children who require services in special institutions, the POA suggests universalisation of educational services by 2000 . To achieve this an increase in enrollment of discolor children in general schools by 25 per cent every that his been envisaged.

Integrated Education for the Disabled Children (ILDC)

- 1. Aims and Objectives Inc Centrally Sponsored Scheme of In egrated Druction for the Disabled Children (ILDC) purports to provide educational opportunities for the disabled children in common schools. In a idition to children with locomotor in a rank handicaps, the IOA recommends that other disabled children who are placed in special schools should also be encouraged for integration in the common schools once they acquire the communication and daily living shalls at a functional level.
- 2. Type of Scheme This is a contrally sponsored scheme under which the central gov rement will give 100% assistance to the States. J. F. For implementation of the scheme. This is subject to the condition of prior creation of technically qualified staff as laid down in the scheme. This scheme started in 1974 under Min. of S.m. and transfered to Finistry of Education in 1982.
- 3. Scope It is broppsed to movide educational facilities under this scheme is the following types of disabled children.
 - (a) Chili ren with locomorer handicap(orthopaedically handicapped).

- (b) Mildly and moderately h _r_ng impaired (categories I & II).
- (c) Partially sighted chil on (categories 0, I, and one-eyed).
- (d) Mentally handicapped-e uc.ble group(IQ 50-70).
- (e) Children with multiple 's ndicaps.
- (f) Children with learning disability.

The childr h with folioting handicops can also be integrated in common schools of r preparation.

- (g) Visually impaired children (category, II, III and IV).
- (h) Severe and profound hearing impaired children (categories III and IV).

The scape of the scheme includes pre-school training for the disabled children and counselling for
parents. It includes, among wher things, special training
for one hearing mandicapped children, mobility and ordentition training for the visually handicapped, parent
counselling and training in home management of these
children.

The education of the discibled children under this scheme will continue upto senior secondary level and included vocational courses.

Administrative Cell

An Administrative Cell to be set up by the State Education Department will have a Deputy Director (in the State Govt. scale of pay), a Courdinator (who will be a psychologist in the scale of pay of a University lecturer) a Special Educator (in the scale of pay of a university lecturer), a Stenographer and an Lower Division Clark (in the State Govt. scales of pay). This Coll will implement, monitor and evaluate the programme.

Implementation

To begin with the scheme may be introduced in selected blocks and gradually excended to other blocks and areas. First a survey of all disabled children in the selected block will be made. Then assessment of the disability will be made and provision made for their education.

Assessment

The Coordinator of the Programme will be responsible for the assessment of the children and monitoring their progress. A three number assessment team comprising a doctor, a psychologist and a special educator will be formed to assess the disabled children. Wherever District dehabilitation Centres have been established its resources for assessment may to used. Members of the assessment team will be given the and D.A. as per service rules. The average cost of assessment should not exceed %.150/- per disabled child. The assessment report should be comprehensive enough for educational programming. It should specifically indicate whether the child can be put directly into school or should receive preparation in special school/special proparatory class in Early Childhood Education Centre.

Facilities for Disabled Child n:

A disabled child may be given the following facilities:

- (i) a. Books and Stationer, allowance of Rs. 400/sper annum.
 - b. Jniform allowance of .200/-per annum.
 - c. Transport allowance of 3.50/-per month.

- d. Render allowance of .50/- per month in case of blind children no r Class-V.
- e. Escort allow noe for severely handicapped @ 15.75/- per month.
- f. Actual cost of equipment subject tora maximum of Rs.2000/-per student for a period of five years.
- (ii) One attendant in school for 10 severely orthopaedically handicapped children.
- diii) Boarding and Lodging Chirges to disabled the children residing in hostels of the institution where they are studying at State Government rates, subject to a maximum of Rs. 200/-per month.
- (iv) Special pay of ws.50, per month to a hostel employee to act as a loer to a severely orthopaedically handicapoud children residing in hostel.
- (v) In a rural school where at least 10 handicapped children are enrolled, capital cost for purchase of a school rickshaw and Rs.300/- per month for a rickshaw puller.

Special Teacher Support:

No special teacher is needed for children with locomotor disabilities. Special eacher is needed for blind and hearing impaired children. One special teacher may be appointed for every 8 such disabled children enrolled.

Qualifications of Special Reachers

Primary: Secondary Education (praferably 10+2) with one year in education of calldren with a particular disability.

Sucondary: -Graduate with B.Ed. (Special Education) with specialisation in a marticular disability.

Special teacher will get the scales of pay of teachers of corresponding category in the State/
Union Territor; plus a special pay of 8.150/in urban areas and .200/-in rural areas.

Resource Room: A resource room having all the essential equipment, learning aids and materials may be provided for a cluster of schools implementing the scheme. The average cost of such equipment is is.30,000/-. A new room may be built for resource from where no such accommodation is available in a school at a cost of is.40,000/-. Grant shall be available for collisions are disabled children to a school having at least ten such childrin.

Provision for Education of the Disabled: Special Schools

Patticularly for the saverely handicapped children special schools were established. Usually one school provided education for children of a single disability. This enabled the school to provide special equipment necessary for children of that resability and also provide specially trained staff specialising in that disability. Most of these schools are residential and take care of the children throughout the day. These schools provide special serves a needed by these children and provide a sheltered environment for them. The teacher-pupil ratio is high about 1:5. These schools are expensive because of the special equipment, better trained special staff and high teacher-pupil ratio. The provision of hostel also increases cost.

Because of the high cost, it will not be possible to provide such special schools for all disabled children. (who are estimated to be about 3 to 4 percent of the total population). Further since these schools provide a highly protected environment, these couldren feel difficulty

in ad usting with the outer—vironment after they

linvisched. While these special schools are essentially

required for the severely discaled, they are not so

essential for the moderately as addly discaled children

we can be elucated in ordinary schools provided some

ap cirl a rvie s can be grown—' for them in these schools.

Special Class in Goneral Schools:

Another way of providing ducation for disabled children is through special class in general school. In such schools although the disabled children are physically in the same school as the normal collidren, they receive aducation separately in special classes according to their disability where special teaches trained in that disability teacher them. Equivant needed for them are also provided in the e-special classes.

In these schools while "isabled children are taught superatuly in special classis, they are in egrated with other children in extra-curricular activities to the extent possible. There histels are worlded, they are allowed to live in the tame hostel as a self-children. This enables these children to learn to edjust to the environment of the irreal society. The normal coildren also learn to accept the disabled children and help them wherever possible.

In such schools, milely heabled children can also be ut in general classes with other children after they are given some preparation in special classes. They also get help from special teachers is and when necessary.

The cost of education for disabled children in these schools is almost the same as in special schools. The only advantage is that the list led children are better helped to integrate with society.

Rational for Integrated Elucition: -

It is estimated that there are more than 12 million children in the elementary school age who are disabled. Disabled children constitute generally 3 to 4% of the population. This excludes children with learning disability who may constitute about 1%, Encational provision should be made for all these children. It present there are a few special schools covering a very small number of children. Special Schools are any costly and it would not be possible to provide special schools for all disabled children.

Fortunately it is foun? that except severely handicapped children, all other disabled children can be
educated in common schools provided certain provisions are
made for them in these schools. The expenditure in making
these special provisions for the disabled in common schools
is much less than the expenditure in establishing a
special schools.

Further, education in common schools is preferable to education in special schools, as in the former, the disabled children learn to adjust with normal children. This helps them in their integer ion with society and in their rehabilitation. The normal children also learn to adjust with disabled children. Thus they accept the disabled in the later social life. The childrin, disabled and normal, learn to help each ther. The National

Falicy in Dauchtian therefore housages that "wherever it is feasible, the education of children with motor indicups and other mild non-Yes as will be common with that of others".

Conditions f r success of int gr tion:

alt. Augh in egrated cloc cion of the disabled in common scho is is hereable, it will not be effective unless certain special provise as are made. The following conditions are necessary for success of integrated education:

- (1) The disabled children smould be identified areawise.

 For this house to house sharvey is needed. After

 identification, the nature and extent of their

 disability should be as and day a qualified technical

 to m.
- (2) Based on the assessment, the children are placed in common schools or special achools. Those placed in special schools are again accuprated as early as possible after they acquire communication skills.
- (3) Schools believed for integrated education of the dischled should be provided with one special teacher for vory eight disabled of here. This teacher should be well trained in the adoction of disabled children . He should provide training in communication skills to the disabled children of manifer and help in their progress.
- (4) All touchers of the school should be given some orientation training in the education of the disabled.

- (5) The School should be provided with special equipment required for the education of the disabled.
- (6) Necessary architectural mode fication of the School building should be made for renowing barriers in movement of the disabled.
- (7) Community awareness programme should be made so that the community understands the need of the integrated education.
- (8) Parents are given training in handling the disabled at home.

Project Integrated Education for the Disabled (PIED):

The PIED has been designed to strengthen implementation of the centrally sponsored scheme of Integrated Education for Disabled Children (IEDC). It is UNICLE assisted as per Govt. of India - UNICLE. Master Plan of Operations.

Special Features:

- (1) It is confined to one selected block in each of five states in 1037-88 and extended to four additional States/ nion Territories in 1988-89 implementing IEDC.
- (2) Composite area approach has been adopted for planning educational services for the disabled in common with others.
- (3) A Project team comcrising a project officers two trained graduate special teachers and a statistical assistant will be formed and located at Block Discretion Offices. Two motor cycles will be provided.
- (4) The Project Area Resource Centre will have some aids and equipment from IEDC. The supplies will be regmented where considered necessary.
- (5) State level resource centre will be strengthened by augmenting equipment, supply of training material and training of personnel.

- (f) The special Education Unit of NCERT will be responsible for all aspects of Project implementation and management. I will be developed as the central Restarce Centre (PIED).
- (7) The SCLAT will be directly responsible for Project planning, implementation, monitoring and evaluation at the State Level.
- (8) A Project Area C n to vall be established in solected project it as and located at a primary school. A teacher with training in special education will be it charge of the Centre.

 The Centre will invo Instructional Material Pank (Ind.) to make the special education needs of dis bled children.
- (9) ...ll pMICLF funds for the Project will be chaunchised through DCERT. The UNICLF will me to the following costs:-
 - salary of one Fronct Officer and two trained graduate special cachers for each of the slocks salacted for the Froject.
 - two mitor cicles for each project team including running costs.
 - surv is for ident Fication, training and prientation of Eroject teams.
 - Froviding Equip, at on a selective basis
 - Finting f la rning, teaching and training materials.
 - participating 'n' helping in Project lesigning, planning, implementation, monitoring and v lustion at national and it is levels.

. . . .

CHILDREN WITH SPECIAL EDUCATIONAL NEEDS: LABELLING AND MANAGEMENT

Dr. (Miss) Tapati Dutta Sr. Lecturer, R.C.E., Bhubaneswar.

The Meaning of Special Educational Needs (SEN):

The concept of individual difference refers to that each individual child is unique, having interest, aptitude, intelligence achievement and personality of his own. Whether normal or handicalped. A child may become handicapped due to various reasons.

Impairment refers to diseased or defective limbs and tissues, example child having no vision or damage of brain caused by anomia (lack of Oxygen during birth) may result in blindness or carebral palsy.

Disability refers to the reduction of function or the absence of a part of the body. For example blind people have disability in mobility.

Handicap refers to the problems that impaired or disabled people have in interacting with their invironment. A person may be handicapped in one situation and not in another e.g., A blind child who is a good singer may not be handicapped while singing on the stage where as a normal child who cannot sing may be handicapped if forced to sing on the stage. Hence, the disabled children should not be treated as handicapped and incapable but they have some special needs which has to be taken care of to enable them to function like normal children.

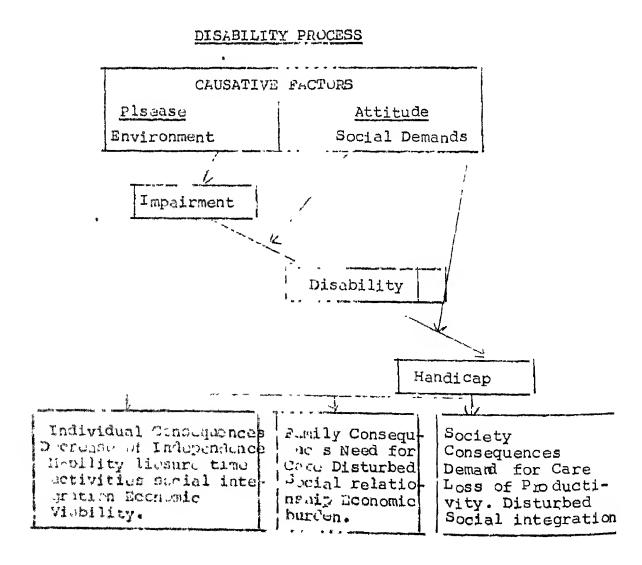
Similarly disabled children have some special Educational Needs due to their disability of one form or other in the educational setting. Those needs have to be attended to with some support services and equipments.

So that those children are enatled to take part in the class-room teaching along with their normal counterparts.

A host of factors are responsible for the handicap and the associated learning problems. Those factors may be categorised as:

A. Within child factors:

- i) Disability
- ii) Davelopmental d. lays.
- iii) Lack of self confidence.
 - iv) Poor self concept.
- 1) WHO, has described the disability process and intervention level for handicapped children.



Disability often leads to valious sensory and organic problems like speech and herring impairment, visual impairment and other orthogachic problems leading to various learning problems.

- Developmental Delays: Then growth and development is below the normal Tevelopment of a particular age developmental delay is very common among the nandicapped children, the area varies according to the disability For deaf and dumb the speech is delayed, for partially sighted vision.
- The hand capped children usual lack self-confidence due to their disability and poor performance. The self-confidence is further brought down due to the negative attitude of the society the parents, teachers, peers and others. This leads to poor achievement and academic failure.
- IV. The lack of self-confidence of those children is also responsible for more self-concept and often results in interiority complex which is also responsible for failure and por academic achievement and consequently trastration in their life.
- B. The second category is Socio-Cultural Factors:

 The Socio-Cultural fixtors work like a vicius

 circle to produce handicap and learning problems.
- (i) Nutrition: Malnutrition is a Major cause of all types of handicaps.
- (ii) Socio Economic Status of the family: How income, illiteracy, large family, disease, malnutrition, lack of exposure and experience essential for better learning and acalenic achievements.

Residential background is also another socio-cultural factor which load to handicups. The people residing in villages and slums are usually uneducated and poor. Poverty and ignorance products handicap and problem of learning.

The poor uneducated recents are usually either have negative attitude towar a mandicapped children, or over protect them because of their disabilities. Both lead to learning problems. Neglected child becomes limit or aggressive are usually meladjusted in the schools. Thereas over potential child becomes too much dependent and cannot progress in learning independently.

C. School and Classroom Fac tur:

- 1. Positive attitudes and acceptance of handicapped children by teachers and peers.
- 2. Physical facilities and other supportive services are essential in order to cater to the needs of those children.
 - 3. While teaching the hindic-pped children the teacher has to use:
 - a) Appropriate teaching materials and methodology
 - b) Frovide freelem and encourage them to participate in the class.
 - c) Avoid failure and provide success experience thr agh task analysis.
 - d) Follow multis as ri approach.
 - 4. Pacility of resource room teaching should be made whileble for room to 1 teaching and teaching plus corriculum.

Absence of alequately trained teachers, teaching m turings in i method may lead to further handicap and educational problems for the handicapped children.

Assessment and Recording of Succial Needs: The Concept of Assessment:

Assessment is the process of determining and understanding the performance of students in their anvironment. Assessment involves considerably more than the administration of a test. In assessing handicapped students, it is necessary to look at the way they perform on a variety of tasks in a variety of settings.

Out reach Further Early or Screening Assessment Intervention Case finding

The assessment follows various steps:

- 1. Screening and identification:
- 2. Diagnosis: After initial sc reening the next step should be diagnosis.

<u>Diagnosis</u> involves medical labeling or educational categorising according to ethology, case characteristics and/or proposed treatment.

3. Assessment: The third phase is the assessment.

It involves the definition of the individuals and in some cases the family's strengths and weaknesses.

The purpose of Assessment:

The main purpose of assessment is to gather representative data to be use in formulating remedial programmes for the child. The teacher's role in this process should be that of identifying the learning problems of a child, through informal tests and observation, developing strategies for electional programming based on the observation and tests and reassessing the child to find out progress.

Who sabuld assess ?

The persons involved in assessment are:

Parents who provide v-cious relevant information about the chill such is talents, interests, problems, birth history, health history, and also capable of carrying lat remedial teaching programme with the help of teach rs.

2. <u>Teachers</u>:

Teacher identifies educational problems, plan educational programmes and implement in the classroom and train perents to practice them at home.

3. Psychologists, doctors, speech therapists ENT specialists and others as and when needed for differential diagnosis.

Procedure for Assessment:

Assessment is done mainly by hoo different techniques:

Testing and Nontesting.

Teaching Technique* In testing technique different standardized tests are used. For example ...intelligence tests are used to measure intelligence, Interest inventories are used to identify interests.

Non testing technique includes: observation, Interview, Rating-scale, sociometry, necdotal record.

Functional Assessment:

The class. Tal programme for handicapped children should base on accurate assassment data. The accuracy and effectiveness of assessment refers to the functional assessment. Before making the educational programme the animal of the child is very contable. The functional assessment in the following

areas are very essential for educational planning of handicapped children.

- A. <u>Cognitive Development</u>: It includes the process of attention, perception, memory verbal skills etc.
- B. Language Development refers to both Expressive as well as receptive language. Excressive language includes writing, speaking, Receptive language includes understanding or comprehension and reading.
- C. Self help skills or Activities for Daily living(ADL) are self feeding, self dressing, toilet training.
- D. Perceptual motor development: includes the chilis gross motor skills, like crawling, walking, swimming, and fine motor skills like eye-hand coordination, writing, painting etc.
- E. Personal Social Development include the child's Social responses to adults and to other children.
- F. Play Development: includes playing with toys, with other children, games, dramatics.

Recording and Communication of Assessment:

Simple collection of information about the handicapped child is meaningless unless they are systematically organised. Therefore the information should be meaningfully kept in the form of cumulative Record Card (CRC) and Case-study.

Commulative Record Card:

I. Identification Data

Name Date of birth Age Sex
Name of School, Grade Section
Present Address

II. Family Data:

Permanent Address

Name Eracation Occupation Income Age

Father

Mother

Bruther

Sister

III. Health Record.

IV. Attendance Record

V. Achi vement Record

VI. Psychological Test Record

VII. Special Award if any.

VIII. Special Problem if any.

Use of Assessment for Equeational Provision and Teaching:

5

1

M diffication of the Diagnosis

Diagnosis

1 2

Evaluation of Student Performance

14

Planning of Teaching Task

3

Implementation of the teaching Plan.

Preparation of Individualized Education Plan (IEP):

1. a statement of the student's present level of educational achievement in areas such as academic chievement, social adaptation, prevocational and vocational skills, Psychomotor skills, and selfhelp skills.

- 2. a statement of annual goals that describes the educational performance to be achieved by the end of the school year under the child's individual education programme.
- 3. a statement of short-term instructional objectives, which must be measurable intermediate steps between the present level of eductional performance and the annual goals.
- 4. a statement of specific educational services needed by the child, including a description of all special education and related services that are needed to meet the unique needs of the child, also including the types of physical education programme in which the child will participate.
- 5. the date when those services will be initiated and terminated.
- 6. a description of the extent towhich the child will participate in regular education programme.
- 7. objectives criteria, evaluation procedures, and schedules for determining, on at least an annual basis, whether the short term instructional objectives are being achieved.

Long-Term Goals:

The first requirements for individualizing instruction is the establishment of long-term goals. The National Association of State Directors of Special Education (1976) suggests critical areas to consider in deciding where to start (Furnbull, et. al., 1979):

What are the priority parental concerns?

What are the priority teacher concerns?

What are the appropriate developmental sequences

of taks or behaviours that the child would be

expected to move through?

What a behaviours appear to be the most modifiable, as determined from beseline assessment data including the child's strengths, weaknesses, and learning style?

Are there any other crucial considerations one needs to make in selecting areas of educational need, such as any problem areas that are truly dangerous for the child, injurious to his or her health, or others?

Hayes (1977) suggests the use of curricular areas when setting annual goals. This will enable the programme developers to focus on specific goals and insure that nothing relevant is omitted. She suggests the following partial topical list of cone at areas that might appear in a district programme planning form.

Reading Skil's

Readiness
Comprehension
Vocabulary
Word attack

Provocational Vocational Skills

Jab readin.ss Work experience

Language Arts Skills

Nriting Spelling Grammar Speach

Arithmatic Skills

Numeration Computation Application Measurement Time

Perceptual Motor Skills

Auditory and visual
Sequencing
Memory
Acuity
Discrimination
Association
Eye-hand coordination
Fine motor Acvelopment
Gross Motal Skills

Large motor activity
General physical health
Body localization
directionality
laterality.

Short-Term Objectives:

Within the determined goals, teachers usually have some freedom in specifying instructional objectives. What must we teach? How will we know when we have taught it? What materials and procedures will work best to teach what we wish to teach? A meaningfully stated objective is one that succeeds in communicating to the reader the writer's instructional intent. Ambiguous terminology such as to know, to understand, to appreciate should be avoided. A behavioural objective is a statement that tells the student what to do, suggests how to do it, tells him what he should do it with and, at times suggests why he should do it. Behavioural objectives make teaching and learning more precise and efficient. e.g. John will recognise and correctly say you new sight words.

Task Analysis:

Task analysis mak's matery of a subject possible by identifying small learner steps, each of which can be mastered with adequate learner practice. In this process, each learning task (objective) is broken into component tasks, each of which must be mostered as a pre-requisite to mastery of the total task. To analyse a learning task, first state the terminal objective which tells what the learner will be able to do after instruction.

- recognises all alphabets correctly 100% of the time.
- knows the use of various vowels and their pronunciations.
- 3. recognises and correctly says 90 new sight words.

Spacifying Educational Services:

The IEP must include statements that specify services necessary to accomplish the goals and objectives identified. Services include speech therapy, physio - therapy, occupational therapy, counselling, and other related school functions.

The Placement Committee:

It includes 1. A representative of the local education agency or one who is qualified to provide or supervise the provision of special education. 2. The teacher or teachers of the child. 3. The parents or grardian. 4. Whenever appropriate, the child. The committee functions as an interdisciplinary team and a. collect information needed to make decisions. b. develop IEP. c. determine eligibility for special colucation placement and d. implementation of IEP. e. monitoring and evaluation IEP.

Setting Timelines:

It is necessary to est blish a time when services for the child will stand and when they are expected to end. The placement committe: will also set dates on which it will review the child's progress towards the annual goals and the snort-cerm objectives.

Evaluating the Programme:

The effectiveness of the programme for each child is determined by the accomplishment of the goals and objectives outlined for him. The evaluation procedures should determine.

- a. if satisfactory progress toward the annual goals is being achieved.
- b. if the annual goals or short-term instructional objectives need revision.
- c. if services need to be altered and
- d. if the student can benefit from a less restrictive environment.

Reporting and Evaluating the Child:

Reporting the child's progress is a very essential step. Noar (1972) observes that many pupil progress reports still place their emphasis almost entirely on the subjects in the curriculum rather than on the learner while many teachers and administrators reneal a greater concern about "how to report" than "what to report".

An individualized reporting form has strengths and advantages over traditional reporting forms:

- a. Both students and teachers are held accountable for learning.
- b. The teacher reports chievement in concrete terms rather than making value judgements based on subjective data.
- c. Teachers evaluate students in terms of their own abilities and are not forced to compare students with others.

Individualized evaluation may be defined as evaluation of an individual scudent's attainment and progress in relation to his wn starting point. In IEP the teachers, administrators, carents and the child can examine the programme in the child's progress and know where he started, where he went and how he got there.

Model Task Analysis:

Task analysis refers to the breaking up of a complex task into smaller and simpler steps so that it becomes easier to master. Te ching proceeds step by step.

Establishing Instructional Objectives T.B.:

First the Terminal Scheviour (TB) has to be decided e.g., self-help skill: Eating with spoon.

Eating with spoon	- T _@ rmi Time	nal B _e haviour ^M aterials	Evaluation
Putting the filled spoo inside the mouth without help	on-5 days -	spoon/solid food/liquid food	Evaluation compeat only solid food without drapping 100% of lime.
Putting the filled spoo inside mouth with help	on- 5 days	<pre>- spoon/solid food/liquid food.</pre>	-do-
Filling the spoon	- 4 Arys	do-	Able to fill 100% of the lime.
Hold the spoon	- 6 J ₁ ys	- Spoon	Hold properly
Identify spoon	- 2 days	<pre>spoon knife fork</pre>	Identify spoom without fail

Teaching Arithmetics

Teaching Languages

Instructional Objectives:

handicapped children. But those objectives are to be broken down into smaller components for handicapped children.

Teaching:

Generally the classroom teaching is not adequate for the handicapped children. They need more practice and extra teaching which may not be possible on the part of the teacher. Hence he has to adopt various other means:

- The class should be devided into small groups.

 Each group should have a leader who will be entrusted with the reteaching the class work outside the class.
- sometimes pairing is also useful. The handicapped child is paired with a bright child who looks after his studies and help him in all respects.

Besides the parent and peer teaching the teacher may have teach the handleaded child individually for remediation of the difficulties which stands on their way of integration. Here the teacher has to prepare the IEP according to the individual need and problem of the child.

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EDUCATION OF CHILDREN WITH DISABILITIES

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BACKG ROUND

You might have come across some children with special needs in your classroom. These children have been learning problems and need a little extra help from you. Sometimes it may be easy to understand their problems, but sometimes it may not be possible and learning problems may persist despite your special help. You get an opportunity to observe all the children in the initial grades in both academic and non-academic situations. These observations can facilitate the early identification of disabled children. The teachers can perform this function successfully if they are aware of the specific manifestations of the disability in personal appearance and behaviour. These children have been learning problems because of factors either inherent in themselves or in their homes or in their schools.

The degrees of special needs arising out of a disability, along with educational implications, have been worked out in this module. The learning activities involve (a) individual activities of doing paper-pencil exercises and reading; (b) group work; and (c) discussion in plenary sessions. You will enjoy doing these exercises and many guidelines given in this module regarding simple identification procedures for various disabilities and their educational implications will ease your problems to a considerable extent.

OBJECTIVES

After completing the module, you are expected to :

- State the various learning problems of the disable children and classify them under various categories
- and non-cerebral), special health problems, convulsive disorders, sensori-motor disabilities,
 mental retardation and learning disabilities.
- 3. identify the children with disabilities at initial level and refer them to specialised agencies for detailed investigation and assessment.
- 4. suggest the points of action foreducating children with disabilities in the least restrictive environment,
- 5. list the agencies and organizations that teachers may contact for assistance in meeting the educational needs of children with learning problems idencified above; and
- suggest follow-up action that you propose to take to meet the educational needs of such children in your classroom.

LEARNING ACTIVITIES :

During your teaching career you must have come across some children who have been learning problems and do not perform well as expected by you inspite of your best offorts and special attention. Your colleagues must have also experienced the same problems with such children and might have possibly shared their views during some

: 3 :

formal or informal discussion. Why not think them over and list all the learning problems of such children on the basis of your experience. Also make an effort to find out the possible cause of such learning problems. You might have spoken to their parents, siblings, peers, other teachers and also directly to the children and this may help you to find out the possible causes of learning problems. You may further find out the causes and may be classified into various categories, i.e., Home, School, Child, or any other.

Let us do some of these activities.	
Activity Sheet No.1: Learning Problems of the . Children in the classroom	
I find the following learning problems of the children in my classroom:	
1. 2. 3. 4. 10.	
Activity Sheet No. 2 Possible causes of Learning Problem	ns
I feel that the learning problems of my children are due to the following reasons:	
1. 2.	
2. 3.	
4.	
1	
t.	
1	
10.	برازدين

ategory	Learning Problems Classified Under this Category
. Child	1.
	2.
	3.
	4.
	'
	1
	10.
. <u>School</u>	1.
	2. 3.
	4.
	1
	t
	t
	t .
٠	
	10.
. Home	1.
	2.
	3.
	4.
	1
	t
	ŧ
	¥
	1
	10.

4.	Any Other	:	1.
			2.
			3.
			4.
			t
			t
			ı
			1
			t
			10.
			τΛ.

The unfavourable attitude of parents and siblings towards the child, the broken family, the marital disharmony between the parents, frequent transfer of father leading to adjustment problems to the child in different schools could be some of the factors related to learning environment at home. The biased attitude of the teacher, inadequate instruction and facilities could refer to the learning environment of the school. Any hearing/visual/ special health/lowered intellectual level, etc., could be the problems of the child. We as teachers cannot afford to neglect these children and suitable measures are taken, many new problems will crop up and the learning problems will multiply. Such situations are likely to cause frustration due to constant failure and as a result, the children will ultimately drop out and develop behaviour problems which may be detrimental to their will-being.

The focus of this module is to deal with children with disabilities in regular schools.

You must have made various attempts to deal with the learning problems of your children. You must have made certain behavioural observations and used some

adaptation/adjustment in the curriculum and modifications in your teaching methods. You must have supplemented your verbal explanations by using various instructional devices/eudio-visual aids and showing practical demonstrations.

You may list the action taken by you so far and also think what further you can do about them.

Activity	Sheet	No.4	Teache Childr	r's A en wi	pp: th	coach to Disabili	deal wi ty	th
Disabilit	Y	Action	taken	so fa	r	Further	action	required
		1.				1.		
		2.				2.		
		3.				3,		
		1				1		
		t				1		9
		t				1		
		1				1		
		1				t		
		i.				ţ		
		ı				t		
		10.				10.		
				A N				

Once these children with disabilities are observed consistently in the classroom, they may be referred to specialized agencies. They may require some medical help and correction to overcome the disability, e.g., they may need hearing aid/lens/magnifying lens/crutches/ wheel chair/writing aid, etc.. The curative and corrective measures are accompanied by adjustment in curriculum and instruction with the objective of making the curriculum accessible to such children. Each area of disability has been discussed briefly within this specific framework and some important guidelines for identification of

: 7 :

disability and education of children have been highlighted.

CHILDREN WITH LOCOMOTOR DISABILITY

Children with physical disabilities are those whose physical or health problems result in an impairment of normal interaction with society to the extent that specialized services and programmes are required for They may have locomotor problems, i.e., problems related to bones, joints and muscles. As a result, the mobility of limbs and extremities gets restricted. They may find difficulty in moving around and some other problems in their home and school environment but they are capable of living like other children. For example, a child having certain deformity in fingers may not be able to have proper grip of the pencil and experience a problem in writing. Some children having postural defects may have certain difficulties in performing some learning activities due to fatigue. Somem normal children may also make fun of these disabled children due to lack of awareness and the disabled children may therefore, face adjustment; problems.

Like children with other disabilities, the physically disabled are typically grouped in categories. We will discuss children who are grouped according to their abilities to function in a particular area and children who are grouped according to their medical diagnosis. The functional categories are ambulation, which refers to the child's ability to move from place to place, and vitality which refers to the child's health and ability to sustain life. In the medical category,

we will discuss convulsive disorders. We will also discuss architectural barriers, and devices designed to assist the physically disabled.

Terminology Based on Anatomy :

Arcas of the body are frequently designated with prefixes, whereas suffixes are used to designate conditions of the body. For example, the prefix "hemi" refers to one side of the body, whereas the suffix "plegia" refers to paralysis or the inability to move. Thus, the term "hemiplegia" refers to the paralysis of one side of the body.

Other common terms are listed here:

Body Area Involved
One limb.
Both limbs on the same side of the body.
The lower limbs.
All four limbs, but the lower limbs more seriously than the upper.
Three limbs.
All four limbs
Upper limbs more seriously affected than the lower.
Front.
Back.
Nearest the middle.
Farthest from the middle.
Nearer to the head.
Farther from the head.

There are a number of other terms used to describe the physically disabled. The terms "proximodistal" and "Cephalocaudal" are used to describe the growth of children. The term proximodistal means that the development proceeds in the outward direction. That is, the central parts of the body mature earlier than the peripheral parts. For example, the trunk and shoulders develop first and then the arms and fingers begin their real worth. The term "Cephalocaudal" means headto-foot direction of development. The head starts growing at a very rapid rate almost immediately after conception. A fetus's head is well developed before his legs assume their final form; arm buds appear before leg buds. This progressive differential growth-first the head, than the trunk, then the legs 4 has been designated by the term Cephalocaudal (head-to-foot).

AMBULATION DISABILITIES :

Physical disabilities that prevent a child from entering a building, travelling easily from room to room, using toilet facilities, moving from one floor to another, or travelling in a crowded half-way all *cause serious problems. It is this type of impairment that has restricted the physically disabled to special schools and modified self-contained classrooms. We will briefly describe the ambulation disabilities which are cerebral in origin and which are caused by noncerebral factors.

Cerebral Palsy :

Cerebral Palsy (C.P) is a ambulation disability that is cerebral in origin. C.P. is caused by damage to the brain. It is characterized by impaired motor

coordination. It is a non-progressive disorder that affects gross and fine motor coordination. The other disorders often associated with CP are communication disorders, sensory disorders, convulsive disorders, intellectual deficits, etc.. There are several types of cerebral palsy including spastic, athetoid, ataxia, rigidity, tremor, and mixed.

c.P. can cause a wide variety of problems, some very serious, some relatively easy to adapt to. Those who suffer from it can be expected to attend school in regular classrooms, in classes for the orthopaedically handicapped, or in programmes for the severely or multiply handicapped. These children may need physical, occupational, and speech therapy. Some will need minimal extra attention, whereas others will need a great deal of assistance to develop to their full potential.

AMBULATION DISABILITIES (Caused by Noncerebral Factors) :

muscular dystrophy, spinal muscular atrophy, poliomyelities, arthogryphosis, arthrities, osteogenesis
imperfecta, spinal cord injuries and other musculoskeletal
disorders. Muscular dystrophy is a progressive weakening
and degeneration of the voluntary muscles. Spinal muscular
atrophy affects the spinal cord and results in progressive
degeneration of the motor nerve cells. Poliomyelitis
(infantile paralysis) is a viral infection that affects
or destroys the cells in the spinal cord. When these nerve
cells are destroyed, the muscles that they serve eventually
die or become paralyzed. The paralysis may affect the
contine body or just parts of the entire body. Many

people with polio are bed-ridden, confined to wheen chairs, or dependent on braces and crutches for ambulation. Spina bifida is a congenital defect caused by the failure of the bones of the spine to grow together completely. Osteogenesis imperfecta is also known as brittle bone disease. Arthogryphosis is a congenital disorder characterized by stiff joints and weak muscles. The first signs of the disease Arthritis are general fatigue, stiffness and aching of the joints as they swell and become tender. The fine common types of arthritis are: Rheumatoid, osteoarthritis, ankylosing spondylitis, rheumatic fever and gout.

A problem in one part of the body frequently causes problems in another part. Children who have spina bifida, muscular disorders, or other disorders, frequently have back problems as well. Muscles that pull too hard or that are unequally balanced can cause such disorders as scoliosis, lordosis, and kyphosis. Inadequate muscle tension sometimes results in the complete collapse of the skeletal system. A club foot is a disorder that can appear by itself or in conjuction with another problem. Children with this disorder are born with one or both feet turned down and in. Amputation is another important disability. It can be partial or complete. Most amputations are necessary because of accidents but some are required by life-threatening physiological disorders and diseases. Limbs may also be missing as the result of disruptions in the early fatal development of This sometimes occurs randomly but it can be limbs. caused by drugs such as thalidomide if taken by the pregnant woman particularly during the first trimester of pregnancy.

The children with locomotor disabilities can be easily identified with the help of the following checklist:

Identification Checklist for Orthopaedically Disabled Children

- Observable deformity in fingers, legs, hands, waist (spine), neck, etc.
- Frequently complains of pains in the joints or show signs of pain during physical exercise.
- Walks awkwardly with jerks/limb.
- 4. Has amputated limbs.
- 5. Falls frequently.
- 6. Has difficulty in sitting, standing and walking.
- 7. Has difficulty to have a proper grip of the pencil
- 8. Involuntary movements of limbs. ,
- 9. Poor motor control or coordination. The child is unable to coordinate two or more muscle groups for performing any task.
- 10. Moves in a shaky fashion.
- Has difficulty in holding objects, picking up and putting them on the table or on the ground.

The teacher must assist the parents of such children to procure aids for mobility and proper functioning through District Rehabilitation Centres, Vocational Rehabilitation Centres, etc..

DISABILITIES THAT AFFECT VITALITY

Some of the disabilities that can . affect the vitality of children are congenital heart defects, cystic fibroris, diabetes and asthma. Children with disabilities that affect vitality are frequently placed in special classes or programmes. Although all these disorders are

: 13 :

life - threatening, some are more dangerous than others. All children with these types of disorders will need special assistance from a primary care worker or teacher, and special educational, sociall and vocational training as well.

Children with mild health problems come under the educable IED group. Their health problems do not interfere with educational planning. But precautions need to be taken in terms of getting adequate medical check ups and support. There are children with severe health problems who cannot be integrated in regular schools. The severity of their health problems interfere with educational planning. Such children require constant medical attention and may not be able to participate in the academic and non-academic activities of general classrooms. These children require rest very often as they get severely tired after 10-15 minutes of studies. Such children need to be educated either in special classes in regular schools or be given homebound/hospital bound instruction...

Children with special health problems can be identified by the teacher with the help of following check list.

Children with Special Health Problems: Identification Checklist

- Shortness of breath.
- 2. Blue appearance of skin.
- 3. Low tolerance of exercise.
- Frequent coughing.
- 5. Have an increased appetite.
- 6. Have low physical stamina and gets easily tired.

: 14:

- 7. Takes snacks, sweet biscuits during class time.
- 8. Excessively restless.
- 9. Extremely slow and inactive.
- 10. Complains of frequent pains in x arms, legs, joints, chest, etc.
- 11. Extremely in ttentive.
- 12. Has slight temperature most of the time.
- 13. Faints frequently.
- 14. Gets irritated, anger very quickly
- 15. Frequently throws temper-tantrums.
- 16. Exhibit destructive and aggressive tendencies without proper reason.
- 17. Frequent urination, abnormal thirst, extreme hunger, rapid loss of weight, sleepiness, weakness.
- 18. Frequent skin infections such as itching/bolls, etc.
- 19. Bre3thes noisily and perspires often.
- 20. Allergic to dust and feels difficulty in breathing.

CONV LSIVE DISORDERS :

Epilepsy and seizures are categorised under the general heading of convulsive disorders. Epilepsy is caused by uncontrolled electrical discharges in the brain and can usually be controlled with medication. Epilepsy as treated as a specialker health problem. The three primary types of seizures that result from epilepsy are grand mal, petit mal, and psychomotor seizures.

You may protect the child by cradling it in your hands and do not restrain child movement, however. The teacher may notice the following symptoms of these problem:

- The child shokes violently as if in the grip of hysteria.
- 2. The child becomes unconscious.

- He falls and moves arms and legs violently.
- 4. He may become pale and there is constant recurrence of fits.
- 5. He may unnecessarily go on rubbing of arms and body parts.
- There is twitching of eyelids.
- He starts taking off clothes.

EDUCATIONAL IMPLICATIONS :

Many types of assistive and adaptive equipment have been developed to help physically disabled children in their day-to-day existence, travel, adaptive to their environment, and communication. Prosthetic devices such as artificial arms and legs are used to replace missing body parts. Orthotic devices are attachments, such as a leg brace or a splint that assist a body function.

Depending upon the severity of the child's physical disability/special health problem and the extent to which he requires special attention, the child might be placed in any of the educational environment which is least restrictive. The great majority of the physically disabled children can be educated in regular classrooms with the use of assistive equipment and special teaching bids. Before recommending the placement of orthopaedically disabled children in the regular classroom, it is necessary to consider that their medical, travel, transfer and lifting, self-mare, and positioning needs can all be appropriately met in the regular classroom.

The first and foremost thing is that the teacher should create an atmosphere of acceptance of a disabled child in the classroom. He should be involved in all learning activities as an equal partner with his peers.

The teacher should encourage peer interaction on the basis of mutual respect, while-hearted support and cooper tion.

This can be facilitated by telling the normal children the implications of physical disability.

Necessary seating arrangements for the disabled children in the front side wall facilitate free movement for other children in the classroom. Ramping arrangements may also be necessary for children with wheel chairs. They should be given adequate opportunities for participation in games, physical and recreational activities at their level and functioning. Efforts may be made to plan such octivities for normal and disabled children as a joint venture.

In the classroom you must have experienced of dealing with a child with locomotor disability and adjusted your teaching and classroom arrangement for children with problems of (a) movement from one place to another,

(b) posture arising out of muscle tension, and (c) muscle rigidity interfering with their academic learning/skills.

CHILDREN WITH SPEECH AND HEARING DISORDERS :

Communication is disordered when it deviates from accepted norms such—that it calls attention to itself, interferes with the mersage, or distress the speaker or listener. Speech results from many organs of the body working cooperatively to produce sound. The three major types of sounds in our language are vowels,—dipthongs, and consensut. Speech and language are developmental processes accaired over time. Language disorders the most camplex and so it serious of all communication.

problems. Most speech disorders involve problems with articulation, voice or fluency. Speech language pathologists are the professionals to deal with communication disorders. The classroom teacher has an important role in the early identification of communication disorders. The following checklist summarizes behaviours and characteristics of children with speech disorders:

- (a) Does the child have any observable deformity of the speech organs?
- (b) Does the child make frequent natural breaks while speaking words and phrases?
- (c) Does the child frequently mispronounce despite corrective efforts made by the teacher ?
- (d) Does the child hesitate in participating in oral group activities?

Gains made in therapy sessions must be reinforced in the home and classroom for speech therapy to be effective. A child listens a lot before he can speak well. Our ears are the doorways to the world of communication. It is the listening child who learns to say his first words by the age of 12 months. The professionals who evaluate hearing by means of audiometric testing are called audiologists. Hearing loss can affect speech and language development, and educational, vocational, social, and emotional adjustment. Depending upon whether hearing loss is mild, moderate, severe or profound, the hearing aid is to be fitted. Hearing aids made sound louder but do not make sounds clearer. Auditory training is important for listening. For educational purposes, children with hearing disorders are classified as either hard of hearing or deaf. The philosophy of

: 18 :

total communication makes use of both oral and manual procedures to teach deaf children.

Regular class teachers should be able to recognize signs that may indicate hearing disorders so that they can refer children for hearing evaluations. They can help keep children with hearing disorders in the regular classroom in many ways. A classroom teacher should watch for the following signs of possible hearing loss:

IDENTIFICATION CHECKLIST :

- 1. Does your child have problems paying attention in school?
- Does your child favour one ear for listening purposes?
- 3. Does he have problems to hear when you speak to him from behind?
- 4. Do you think your child can hear, but only when he wants to hear?
- Do you think your child speaks too loudly or too softly?
- 6. Does he exhibit voice problem and mispronounciation
- 7. Does he tune the Radio/T.V. too loud?
- 8. Does your child answer guestions irrelevantly ?
- 9. Does your child keep away from age mates ?
- 10. Is your child unable to respond when you call from other room ?
- 11. Does your child understand only after few repititions ?
- 12. Does the child focus on the speaker's face while listening to and understanding speech ?
- 13. Does the child ask for help from fellow students in taking notes . When the teacher gives verbal explanation of the lessons in the classroom?

- 14. Does the child complain of frequent earaches or ear discharge?
- 15. Does the child scratch his ear frequently ?
- 16. Does the child haveany observable deformity of the ear?

If one or more of these symptoms are present in your child, you need to observe the child and see if the behaviour is consistent in similar situætions. If the behaviour is found consistent, your child needs professional help from an audiologist.

EDUCATIONAL IMPLICATIONS :

The treatment and educational requirements of a school - age child will depend on the nature and severity of the child's hearing loss. There are many children with mild to moderate hearing loss in regular schools. The following suggestions may help the teacher working with them effectively:

- 1. If the teacher generally teaches from the front of the room, the hard-of-hearing child should be seated in the front, preferably slightly off center towards the windows. This allows the child to hear better and read lips more effectively. Light should be directed towards the teacher's face and away from the speech reader's eyes.
- 2. If the hearing impairment involves only one ear, or if the impairment is greater in one ear than the other, the child should be seated in the front corner seat such that his better ear is towards the teacher.

- The child should be encouraged to watch the factor of the teacher whenever she is talking to the child. The teacher should speak at the speech reader's eye level whenever possible.
- 4. The teacher should pay attention to the posture of the hearing impaired child's head. The habits of extending the head or twisting the neck to hear better can become firmly fixed.
- 5. The teacher should not speak loudly or use exaggerated lip movements when speaking to the hard of hearing child.
- 6. The hearing impaired child should be encouraged to turn around to watch the faces of children whi are reciting.
- 7. An interest in music and participation in vocal music should be encountered.
- 8. The teacher should be able to assist the child who wears a hearing aid in the classroom.
- 9. The hardOof-hearing child should participate actively in all plays and other activities which involve speech.
- 10. Teachers should watch carefully for illness in hearing impaired children. Colds, influenza, throat and nose infections, tonsilitis, and other ailments should be treated as soon as possible.

Under the centrally sponsores scheme on Integrated Education of Disabled Children revised 1987, * Taxthere is more emphasis on the integration of mild and moderate

: 21 :

cases of hearing impaired. The integration of severe and profound cases has been recommended after preparation in preacademic skills.

CHILDREN WITH VISUAL IMPAIRMENT:

The basic function of eye is to collect visual information from the environment and transmit it to the brain. We collect nearly 80-90% of information through our eyes. This input is denied to the visually impaired. Visually impaired children (VIC) are classified as either blind or partially sighted. The blind children cannot read the usual text and need braille, which is read through touch. These children can be easily identified. The vision of some of the partially sighted children can be corrected through a lens, some require magnifying glasses to read and some can read only large print of 18 point and above. Some children have a restricted field of vision.

Most visually impaired children are not totally blind. Approximately two-thirds of all visually impaired children have some remaining vision. A majority of cases of blindness are either preventable or curable.

Much use of blackboard and reading from the books is required for academic learning. Visual impairment leads to several kearning problems. Such children can be easily identified by the teacher with the help of the following checklist.

Identification of Checklist for the Visually Impaired :

- Observable deformity in the eye(s).
- Frequently reddening Fof eyes.

- Rubs eyes excessively.
- Holds objects and books close to his eyes.
- Covers one eye and tilts the head forward.
- Blinks eyes frequently.
- 7. Squints eyes.
- Asks other children for help while taking notes from the blackboard.
- Complains about headache following close eye work.
- 10. Watery eyes.
- 11. Pupils of the eyes are of different sizes.
- 12. Seems very sensitive to light.
- Becomes inattentive.
- 14. Body becomes tense while trying to distinguish the distance objects.
- 15. Takes false steps while walking.

If a child displays some of this behaviour, the teacher may refer him to PHC or hospital for eye check-up and medical treatment.

EDUCATIONAL IMPLICATIONS :

Visually Impaired Children tend to glag behind their seeing peers in school achievement. Once a child has been placed in the most suitable educational environment, the educator must consider the curriculum that will best meet his-her needs.

Children with visual problems are usually taugh the same sequence of subjects as children with normal vision because they need to master the same basic skills. However, unlike sighted children they will need to be taught special skills in addition to such as Orientation and mobility, Daily living skills, Braille : 23 :

Reading and Writing, etc.. Although the responsibility for implementation, the total curriculum plan lies with the regular teacher, the assistance of a specially trained teacher will be necessary to teach these special skills to VIC. The media through which VIC obtain information are tactile, auditory, and visual.

Those involved in educational planning should remain flexible in their approach to placement. It is important to remember that the most appropriate, least restrictive environment for VIC is the one in which they would normally be enrolled if they were not visually impaired. They should be educated to the greatest extent possible with sighted children. In considering basic instructional methods for visually impaired children, it is important to remember that many of the techniques and strategies that are effective with seeing children are also appropriate for the visually impaired. VIC do have some unique instructional needs and will require help from specially trained teachers of the visually impaired in some academic areas.

Here are some guidelines for the teacher to help VIC in integrated setting.

- Make the VIC seated in front so that they may be able to read from the blackboard without much difficulty.
- 2. He should write on the black board with bold and clear letters and speak loudly whatever he writes.
- He should supply books with large prints.
 (18 points or more) to cater to the needs of VIC.
- 4. He should supply hand lens, magnifying glasses, etc., from DRCs/hospitals for children whose correction is beyond the spectacle lens.

- 5. VIC may be given training in listening with comprehension.
- 6. Provide opportunities for participation in physical education games.
- 7. Give more auditory and tactile aids to compensate for visual loss.
- 8. Arrange to provide audio-cassettees for VIC from SIE/SCERT/CIET/NCERT/NIVH, etc.
- 9. Provide more verbal caes while explaining the concept in the class.
- 10. Provide compensatory aids like cane for mobility, braille slate and stylus for learning to read and write braille, abacus to learn numerical concepts and brailler to cope up with speed of taking dictation in classroom.

CHILDREN WITH LOW MENTAL ABILITY :

Mental Retardation is impaired mental ability.

To be di gnosed as mentally retorded, a person must be significantly subaverage in both intelligence and adaptive behaviour. A retarded child learns more slowly; at maturity his capacity to understand will be less than normal. He finds difficulty in learning, special adjustment and economic productivity.

The classification system based on severity of systems, which identifies children as mildly retarded (Educable Mentally Retarded), moderately retarded (Trainable Mentally Retarded), and severely/profoundly retarded (Custodial Mentally Retarded), is the system of great utility. The performance of mentally retarded children is affected in the class by their delayed development. The observable behaviours that will help the to cher in identifying such children are given in the following check list.

Identification Checklist for the Mentally Retarded:

- Consistent low academic achievement.
- 2. Has short attention span.
- Has a poor self-image.
- 4. Lacks self-confidence.
- 5. Has restricted communication.
- Often inattentive and easily distracted.
- 7. Seeks immediate reward.
- 8. Has poor muscular coordination.
- 9. Seeks repetition and practice.
- 10. Displays fear of failure.
- 11. Shows excessive reliance on presentation of conceete objects.
- 12. Has a problem in understanding instructions/ abstract things.
- 13. Does not take initiative in group activities.
- 14. Faces difficulty in doing things for himself.

Educational Implications:

It is best to regard retarded people as "developing individuals" who are capable of growth and development that can lead to favourable changes in their behaviour. With early and proper teaching, with suitable schools and vocational training; the mildly retarded, who constitute 75 per cent of the retarded population, can learns to be fairly self-supporting adults. These EMR children with good adaptive behaviour skills can often be successfully integrated into regular classes. TMR children are usually educated in special classes and can only be integrated in non-academic areas with adequare preparation. They can be trained in vocational

: 26 :

areas and daily living skills. The retarded benefit from all types of attention and training. Even the S/PR can improve. The CMR cases need help in developing daily living skills and can be educated in special institutions. They cannot be integrated due to poor adaptive behaviour.

The following guidelines for adaptation of instructional material and methodology for the EMR may be useful for the teacher.

- 1. Provide concrete experiences for these children.
- Provide direct experiences of the environment by field trips.
- Provide more repetition and practice.
- Present the learning task in small steps.
- 5. Draw their attention to important points of the learning task.
- 6. Ask simple questions to give them a sense of accomplishment.
- 7. Provide immediate reward as and when the child gives correct response.
- 8. Provide training in communication skills through practice in social situations.
- 9. Arrange situations so that they may participate along with normal peers.
- 10. Transact the curriculum through simple and interesting experiences.
- 11. Ensure mastery of basic skills in the three Rs.
- 12. Organize learning activities through games, physical activities and music which form a permanent impression on their minds.
- 13. Arrange activities requiring eye-hand coordination

- 14. Arrange activities which help in developing sound discrimination.
- 15. Utilize advantageously a situation chosen by the child himself for learning a particular skill.
- 16. Provide all necessary aids and supportive materials to learn a concept adequately.

CHILDREN WITH LEARNING DISABILITIES:

Learning Disabled (LD) have difficulties in learning to read, write, speak, comprehend, do arithmetic spell the words, etc.. The basic problem in learning - disabled children is an incapabity to learn through normal and conventional channels. Such children are said to have a learning disability which arises out of the problems in psychological processes like perception and memory.

From a psychometric stand point, a learning disability can be operationally defined as a significant discrepancy between a child's actual level of achievement and the achievement expected of a child at his/her chronological age. The causes of learning disabilities are very poorly understood, but they could include such disparate factors as maldevelopment of the brain and poor teaching. The main characteristics of LD children are:

- 1. Attention difficulty.
- 2. Perceptual problems.
- 3. Memory problems.
- 4. Language deficits.
- Poor motivation/attitude.

- Poor sound/symbol association.
- 7. Transfer difficulties.

In order to be called a "characteristic" difficulties that children with learning disabilities have must be:

- (a) Observed consistently over time,
- (b) resistant to simple remedial teaching methods,
- (c) accompanied by a significant gap between achievement and ability.

Identification Checklist for the Learning Disabled :

- Has difficulty in telling the time, remembering the order of days, months and mathematical tables
- Is always untidy and late in submitting homework and coming to class.
- 3. Is so excited that he is unable to complete and task.
- 4. Finds in difficult to organize his work, uses trial and error approach, logical and sequential approach missing.
- 5. Seems dull and slow in responding to others.
- Gets easily distracted even by slight disturbance.
- Cannot correctly recall oral instructions when asked to repeat them.
- 8. Confuses between left and right.
- 9. Reads words backwards, puts letters in wrong order, chortens words, misreads words, omits letters, adds letters, etc..
- Difficulty in academic subjects, difficulty may be only in one subject or a combination of subjects.

EDUCATIONAL IMPLICATIONS :

Learning disabilities and behaviour disorders may occur in part because our schools are unable to provide enough high quality individual instruction. The regular classroom teacher should become skilled through in-service training in managing learning disabilities within the mainstream of the school. It is very difficult to identify the children with a mild degree of learning disability at pre-school level. They can be identified early if the parents and teachers plan their instructional material systematically from the very beginning. The guidelines given below will help the teacher to adapt instructional material and methodology to the needs of these children.

- 1. For correcting learning disabilities the child should be given exercises to identify a particular letter or number which is difficult for him to recognize, write or speak.
- 2. Letters or words which resemble each other, either visually or auditorily, should not be taught together.
- 3. Sensory experiences should be provided to copy letters correctly and to verbalize the differences. For example, saw and was; no and on.
- 4. Learning tasks should be divided into small groups so that the child feels that he has mastered the task.
- 5. The initial part of the remedial session should involve activities on which the child can achieve 80-90% success. A sense of success will act as a motivator.
- 6. Encourage the child to perceive the words as a whole rather than through i identification of individual letters.

7. Ensure that the child is continually busy and interested in the task during the teaching session.

AN OVERVIEW :

There are children with some impairment who can be ducated in general schools with the existing facilities by general teachers without any formal preparation.

There are children with certain impairments who can be educated in general schools with some preparation and slight modifications/adjustments/adaptations: teaching methods and materials. There are also a limited number of children with disabilities, who will require comparative prolonged formal preparation before they can be educated in general schools.

Children with different types and levels of disability will require educational provision matched with their needs. The educational provision may be considered on the basis of the extent of their root participation in educational activities in common with other children. Targets of Universalization of Primary Education (UPE) can be achieved only through integrated education. Integrated Education is not an additional burden. Planned integrated education helps in universal enrolment and retention. Children with mild and moderate disabilities can be integrated in general schools. Adequate arrangements are to be made to give vocational training to the disabled. Teacher training programmes need to be reoriented in particular for teachers of primary classes, to deal with the special difficulties of handicapy children. Teachers should keep in touch with developments in the preducation of the disables. Parents and the society nee 'your help in developing disabled children as a human resource just like other children.

EARLY IDENTIFICATION OF EDUCATIONAL PROBLEMS

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The fundamental purpose of a psycho-educational assessment is to gather representative data to use in formulating remedial programmes for the child. The teacher's role in this process should be that of identifying the learning problems of a child, through informal tests and observation, developing strategies for educational programming based on the observation and tests and reassessing the child to find out progress. There are a few principles/steps to be followed for the systematic assessment of the child.

Principles of Assessment:

An ideal psycho-educational assessment should comprise the following four steps (Smith, 1974): (i) Identification procedures; (ii) Evaluation techniques; (iii) Development of an educational plan and (iv) Implementation of teaching strategies.

Diagnostic Teaching Flow chart (SMITH)

- Level I children with suspected education problems, i.e., those that exceed the usual experiise of most regular class teachers, are identified as potential high risk youngsters and referred to some type of diagnostician.
- Level II Evaluation of the child's educationally relevant characteristics and the prominent environmental traits that may in some way be associated with obvious or suspected educational problems.

: 2 :

Level III Development of a comprehensive educational step

plan for the child - one that is based on diagnostic data that have been gathered about him and about his environment.

Level IV Assignment of the child into the most suitable step

instructional environment as suggested by the educational plan which was generated at Level III.

Identification:

As mentioned earlier, this step involves general screening to spot the children with learning problems.

Individual teachers or parental referrals are also considered for identifying children with problems in learning.

Evaluation:

In this phase, more intensive assessment is carried out using specific evaluation tools including psychological and educational tests. By this, the specific problems of the child are noted. Ideally, this step in assessment is carried out not in one sitting but through a few days, under different circumstances.

Development of Teaching Plan :

After gathering assessment data, a teaching plan is developed in this stage based on the analysis of the data collected. It is very important that care be taken in using the assessment data appropriately for forming the educational programme of the child with long term goals and short term objectives.

Implementation :

The plan developed in the earlier stage is put into practice in this step. Children who have minimal learning problems might benefit from the resource of

: 3 :

room setting for implementing the teaching plan. This applied to borderline, EMR and learning disabled children. On the other hand, children with severe learning problems will need special class setting for the academic work. The non-academic activities can be programmed with normal children which will lead to social integration. However, the primary emphasis in the present phase should be on the remedial strategies for helping children and to integrate them with normal children to the maximum extentpossible.

After implementation, the children need to be reassessed to check for the progress and the success or failure of the plan that is developed and implemented.

Therefore, the teacher must have a periodic assessment schedule, which is also called as continuous assessment.

For this purpose, Janet Lerner has developed a cycle called Clinical Teaching cycle. As we see in the diagram, assessment is not an end in itself but is continuous and on-going.

DIAGRAM OF THE CLINICAL TEACHING CYCLE

5
Modification
of the
Diagnosis

1 Diagnosis

4

Evaluation of student performance

2 Planning

of the Teaching Task

Implementation of the Teaching Plan

3

Characteristics of Accurate Assessment:

An accurate psycho-educational assessment should give the following details regarding the child:

 should identify the subject's learning characteristics; style of learning and strength and weaknesses. : 4 :

- 2. Should help in understanding the personality dynamics which leads to the setting up educational programme.
- 3. Should precisely classify the child as mentally retarded, learning disabled, emotionally disturbed and so on.
- 1. Should aid in homogenous grouping.
- Should assets the progress and prognosis.
- 5. Should facilitate identification of educational readiness and appropriate placement.
- 7. The administration and scoring should not be too complicated to be used by the teacher.

Guidelines for Accurate Assessment :

- 1. Each assessment technique has distinct advantages and disadvantages when used with different types of children in different situations and therefore, the best method is to employ a variety of assessment techniques.
- As teacher has a major roleim in the assessment process there are certain desirable traits for the teachers. These are emptional health and stability; good sense of humour; flexibility; ability to relate well to people; orientation of test results in problem solving and sound theoretical orientation.
- The assessment must be done periodically as & such continuous assessment results provide the teacher with evidence of successful instructions or faulty learning.
- As the primary purpose of educational assessment is to directly use the results in teaching programmes, selection of inappropriate tests must be avoided, results must not be over generalized and care must be taken in interpreting test results.

- problems such as physical, psychological, social socio-economic, cultural and environmental factors must be taken into account while assessing or taking the help of related services. This helps the teacher in recognizing the interferring factors in the home and neighbourhood and plan for the child accordingly.
- 6. Certain precautions must be taken while administering psycho-educational assessment. This includes, (a) training of the 'one' who assesses; (b) avoiding misinterpretation of test results; (c) confidential data of the child and family must not be used inappropriately; (d) the child's attitude towards testing such an anxiety, submission, resentment and perplexity must be considered; (e) using the same test toc often for all children must be avoided.

As far as possible, tests developed for Indian children must be used.

Dr. Tapati Dutta, R.C.E., Bhubaneswar.

INTRODUCTION:

Psycho-educational characteristics refers to those characteristics, essential for education and effective learning. A child begins to learn at the time of birth and perhaps even before. Learning occupies a central position in shaping human behaviour. Acquisition, retention or memory, transfer or generalisation, recognition and relearning are some of the important determinants of learning. Readiness for learning, motivation to learn, reinforcement, exercise, distributed practice, active participation and overlearning are some of the important mathodological guidelies of learning process for mentally retarded children.

ACQUISITION:

Mentally retarded children have problems in learning and acquisition because of varied reasons. These children lack motivation to learn and therefore they cannot engage themselves effectively in the learning task. Mentally retarded children have very short attention span and therefore iney are easily distracted. They are also hyperactive and cannot concentrate on the task for long time. Thus they require very long time to have mastery over any learning activity.

However acquisition can be facilitated by repetitions, drill and practices adopting multi-sensori approach. Hund ed per cent m story and over

learning are very essential for effective learning by mentally retarded children.

RETENTION AND MEMORY:

The dictum that memory is the foundation of learning and also more prominent among sub-normal than normal /-subjects. Brown (1955, 1958) postulated that every item presented leaves a trace and it swiftly decays unless rehearsed. The number of items that could be rehearsed or registered are limited to seven items at a time for normals (Miller, 1956). According to him retention is a function of the number of 'chunks'. The memory involves imput, registration, storage, organisation and retrieval which can be observed by the different methods of reproduction such as recall, recognition, relearning and reconstruction.

REACTION TO FAILURE:

Mentally retarded children as such have poor motivation for learning. They also suffer from inferiority complex. Hence, they are very sensitive to failure. Because of their poor mental ability they experience failure very often. Frequent failure experience may result in various psychological and emotional problems in case of mentally retarded children. The problems are:

- a. Poor motivation and lack of interest in learning.
- b. Inferiority complex.
- c. Avoidance of learning.
- d. Poor self-concept.
- e. Lack of self-confidence.

REMEDIES:

The teachers should take extra care to avoid failure experiences in case of mentally retarded children. The teacher may adopt the following guidelines:

- 1. Follow the principle of simple to complex while teaching.
- Adopt task analysis to make the task simple.
- Follow multisensori approach for better understanding and retention.

All learning is based on memory is indisputable.

In its broadest sense, the process of memory is commonly divided into three phases:

- a. The phase of acquisition or learning phase.
- b. The phase of retention or retaining phase.
- c. The phase of reproduction or recognition or testing phase (Ingham, 1952).

Baddley and Patterson (1971) stated that a human being without a memory would be like a vegetable; not only he cannot understand or communicate with the world around him but also without memory he cannot even adequately perceive the world. The mintally retarded appear to have a learning deficit (sloer learning and poorer short-term retention than normals, Ellis, 1963); it is important to point out that the mentally retarded can learn a variety of responses almost as well as normals of equivalent chronological age. There is

little available evidence of an appreciable deficit in long-term retention when the mintally retarded are compared with normals, provided the two are matched on original learning (Denny, 1964). Mence it can be concluded that with regard to lon - rm memory the mentally subnormal children do not show any deficit. This can be attributed to the scope of total mastery of the task, overlearning and better consolidation of brain traces.

As far as short-term memory is concerned the investigators have largely confined their experiments to group comparisons between retardatus and normals (Jonson, 1965) where the results are not consistent. Ellis (1963) has put forward a Stimulus-Trace Theory regarding short-term memory to acco nt for greater decay in retardates than normals. O'Connor and Hermelin (1965) have pointed out that in addition to memory decay, attention or input deficiencies are also more prominent among subnormal than normal subjects. Brown (1955,1958) postulated that cv ry item presented leaves a trace and it swiftly decays runless reherrsed. The number of items that dould be rehears dor registered are limited to seven itsmerat arbind for hormals (Miller, 1956). According to him retention is a function of the number of 'Chunks'. The memory involves input, registration storage, organisation, and retrieval which can be observed by the different math as of reproduction such as recall, recognition relearning and reconstruction

TEACHING LANGUAGE TO M.R.CHILDRIN:

Language:-

Language is a system used to communicate ideas and meaning. Language includes four basic skills which has two phases like:-

Primary Phase - a. Listening Receptive
b. Speaking Language.

Secondary Phase-a. Reading Expressive Language.

In the primary Phase the child listens the sound and imitates and reproduces them, thus learns to speak. For proper development of speech adequate training in hearing the language is very essential. This training should begin just after birth; quite sometime before he starts speaking.

COMPONENTS OF LANGUAGE: -

The five major components of language are

(1) Semantic (2) Syntax (3) Phonology (4) Morphology

(5) Pragmatics. ...

Semantics: -

Semantics refers to the meaning expressed by verbal symbols (words) as well as the meaning attached to word relationships, grammatical forms and constructions in a language e.g. "Car" "Car go".

Syntax: -

Syntax refers to linguistic rules of word order and the function of words in sentences e.g. "no ball find" " I cannot find the ball".

3. Phonology: -

Phonology refers to the sound system of our language. Problem in phonology are attributed to:

Ommissions: Incomplete pronounciation such as "Cokie" for "Co kie" "nothin" for "nothing".

Substitutions: Child replaces a correct phoneme with an incorrect phoneme e.g., "thilly" for "silly".

<u>Distortion</u>: This may be due to the complexity of the movements involved, hearing loss or poor motor control. (a) (Snake sound), (b) (buzzing bee sound).

4. Morphology:

Smallest meaningful units of language. Bound morphemes (ed. s. s. un) locked, eggs. Tony's and unlocked.

5. Pragmatics:

Pragmatics deals with use of language for communication e.g., understanding the difference between requests, commands and promise.

Please go to study.

Go to study

I should go to study.

INSTRUCTIONAL TACAMIQUES:

I. Imitation and Reinforcement:-

Imitation refers to the child's repetition of words and language structures thathe, she is learning from a model. This is also known as lodelling.

Reinforcement is very essential for correct language learning: Sometimes the child is reinforced by the model when he reproduces the struc ure correctly. Sometimes he/she gets self reinforcement by communicating the ideas correctly.

2. Expansion: -

Refers to practice of not only acknowledging and reinforcing what a child says but also expanding e.g., 'Crayons fall" teacher should expand "The Crayons fell off the table".

3. Labelling: -

It is different from expansion: labelling requires no initial utterance on the part of the child. The teacher provides appropriate words: things or feelings e.g., "You should not feel nervous".

4: Auditory Training: -

Listening involves attending, discriminating, understanding and remembering which can be improved through training.

5. Effective Questioning:

The content of the question as well as the format used in asking the question can affect, the student's ability to understand and respond appropriately.

- Use questions about specific knowledge.
- Phrase questions so that students may respond.
- Provide sufficient time for students to respond.

- Horas from the analysis of the sector in terms of the formation, and his the linear of souls
 - Distribute questions among all students.
 - Reinforce students for responding.

6. Signing:

Manual English is avoided these days even for hard of hearing and deaf children.

TEACHING, READING AND WRITING TO MENTALLY RETARDED CHILDREN:_

Reading and written expression can be identified on two levels. The level one deals with the identification of basic skills, level two identifies the application of these skills to the community.(John,1986)

STEPS:

Identifying Potential Annual goals
.. Reading Level: T

a. Mildly Retarded Deceding.

- i. Identifies and pronounces blends commonly found in words, first, second and third grade level.
- ii. Identifies, and pronounces consonants initial, medial and final positions in word.
- iii. Identifies and pronounces both long and short vowels.

But, Bat

iv. Identifies and pronounces root words prefixes and suffixes.

Car - Car-go, Lock - unlock.

Moderately and Severely Retarded:

1. Recognizes and pronounces a variety of functional words using a whole word memorization approach.

b. Comprehension:

Mildly Retarded

- i. Demonstrate the meaning of a wide variety of words.
- ii. Locates and describes the main ideas of a story and recall the details.
- iii. Follows written directions.
 - iv. Sequences events in logical order.

Moderately and Severely Retarded:

- i. Demonstrates the meaning of words by acting appropriately (danger, push).
- ii. Follows some written di. ctions with adaptations.
- iii. Makes basic inferences and evaluations based on listening comprehension skills.

Reading Level 2

Mildly Retarded: -

- i. Locate basic information about objects/ subjects using source books, manuals & dictionaries.
- ii. Uses maps to arrive at intra community and inter community locales.
- iii. Assembles objects using written
 directions.
 - iv. Demonstrates reading skills, in home recreation and other settings.

•

Written Expression Level II:

Mildly Retarded:

- Writes name, address & other personal information.
- 2. Fills out application forms.
- Writes ori f, letterspersonal and official.
- 4. Lists activities that need to be accomplished.

Moderate:

- Carries a card containing personal information.
- drites brief rersonal letters and notes.
- 3. Lists activities to be accomplished.

Step Two:

Translating Annual Goals to Short-term objectives (S.TM).

- The objectives has to be written according to the age and functional level of the children. STM should be related to the list of weaknesses, where each weakness can become the content for an objective, e.g., severely retarded child who was unable to read any word from alist of vegetables, the STM should be

Outcome: - The student will read five names of different vegetables.

Context: Three different vegetable charts containing 10 names.

Criterion: 100% of the trial.

Step Three:

Assessing Student's Entry Behaviour

A thorough analysis of each learner's strengths and weaknesses has to be conducted. Firstly the teacher should conduct survey level assessment pin-pointing general deficit areas using observation and commercial tests, identify the areas such as, reading aloud decoding, reading comprehension, word usage, spelling, hand-writing and other areas.

Then the teacher may go for specific-level assessment by using various tests or using more informal methods such as teacher-made tests.

graded word tests and informal reading inventories.

Instructional Strategies:

The most important consideration in teaching reading and written expression to retarded learners should base on each learner's needs, because of the variations in their strengths and weaknesses in visual, auditory and kinesthetic modalities. The teacher should review many possible approaches and programmes, deciding which individual programme or combination of them is the best to match learner's needs.

Preliminary Reading :

Reading for children (MA 4 to 6 years) is commenced by learning the names of objects or animals or flow rs or fruits drawn on the black-board by the teacher. The children are encouraged to read two or three letter words and even two word phrases with the help of corresponding pictures as soon as they recognise or get an idea of the formation of letters. The idea is to push the child on to realing and writing words which make sense, convey tome meaning to him so as to make his work interesting and encourage him to learn more. To make this possible the children who e.g., learn in Hindi the accompanying pictures with corresponding symbols to represent the vowels sounds are used. The vowel sounds with corresponding symbols are taught alongwith the letters of the alphabet. New words are easily learnt if introduced into rhyming calculates.

For children (M.A.7 to 10 years), two or three are used and a few lessons are different readers selected from each such as fairy stories and other lessons with useful values such as "wic invented the engine", "Ocular health", "Vitamins for health", lessons about usefulness of the doctor, 'ne nurse, the baker, the postman, the Policeman etc. and other lessons which deal with everyday topics. A new lesson is always read out to the class by the teacher, the narrative details are explained, the children are acquainted with the vocabulary, sentence construction, stc. before they commence to read and learn the lesson. Suitable varses of poetry are read out over and over again till the children get used to the sound and rhytum of the verses, sense the beauty of the meaning and are so encouraged to learn the verses by heart.

The children of MA 7 to 10 years are required to read small passages at a time slowly and every effort is made to teach good pronounciation, pans, s and expression. Each child reads aloud to the class and the whole class read a passage together. For a few minutes the children read silently from a familiar reader or a story book. Nouns, pronouns, verbs, adverbs are easily learnt with plenty of examples. The children understand number and gender but find it difficult to understand "tense".

The stages of composition easily followed are -

- a) How letters make words ?
- b) How words make a sentence ?
- c) How sentences make a story ?

From two or three given words children make sentences, and from two or three given % cts they make a little story. Later on they learn about nunctuations, and paragraphs. Writing letters to each o her or to distant relatives or friends, invitations to tea parties, etc. make a very favourite ac tivity. Composition should intend to teach the correct form of language which is one of the most difficult subjects to the retarded child as it is language which helps him to express himself.

APPROACHES:

1. Phonetic Analysis Approach:

Phonetic analysis or word lttack or decoding involves recognising new words by iden-ifying sound when presented with their correspondin, winted symbols, sometimes called the grapheme (Symbol)-chaneme (sound) relationship.

Unfortunately, the auditory parciption deficits suffered learners cannot learn by this A thod. But they can learn decoding. Decoding training can be provided by:

- a. The sounds of initial consonants can be paired with pictures.b= bat, c=Cat
- b. Colour coding new sounds helps learner to associate sound with colour. Once sound is learnt, colour can be faded.
- c. Colour coding can better be used to show how the blend shows up in different words. (bat-red but-blue ban-green).
- d. Showing them that by changing the initial word new words can be formed 'an' 'at' (pan, tan, man/cat, mat, hat, bat)

2. Basal Reader Approach:

Teach r like basal readers because they are structured, have manual listing object v.s and supplemental activities and are self-contained. Mercer and Mercer (1985) pointed out a number of disadvantages:

- it limits teacher's willingn. s to develop innovative activities.
- it is designed for a group and tend to overshadow the individual needs.
- many basal readers present multiple objectives within one lesson which may be difficult to achieve by a retarded learner. If the teacher

emphasizes only one or two objectives and develop many supplemental activities it can be used for retarded learners.

3. Language Experience Approach :

In this system learner's experiences are used as the basis for the reading material. Students who can write put their stories on paper and those who are unable towrite present their stories orally to be written by others. But retarded children usually have deficits in oral language.

4. Linguistic Approach :

This approach emphasis phonema/grapheme relation-ships and minimizes any comprehension still in the early stages of instruction (Marsh, Frice & Smith 1983). Many linguistic programme use the whole word approach, clustering words that are similar in structure e.g., Cat, Bat, Fat.

Retarded learners also have auditory perception oroblems and difficulty in transferring knowledge or skills across situations will face problems.

Teachers will find this approach useful if he can monitor and provide ample directions in the form of prompts and clued-man, pan, tan.

5. Remodial Reading Approach :

Phis approach emphasis : -

Allow repeated practice (over learning), allowing retard d learning with long-tym memory deficits to c cain better.

- 2. Allowing learners to master casier skills before moving to more difficult task through sequencing or task analysis.
- 3. Provide immediate feed back and correct the errors.
- 4. Provide opportunities to practice learned skills under varying conditions for generalisation.
- 5. Allowing students to practice skills using visual, auditory, & tactile with the help of multisensory approach.

Remedial approaches are specialised and should be matched to the strengths and weakn saws of each learner but must not conflict with instructions in the regular class.

6. Functional whole word Approach:

This is useful for moderate and severe retarded learners. This approach has been defined as a student's actions or responses resulting from reading printed words, e.g., severely retarded learner reads the word 'bread' and selects a loaf in the shop performs an observable behaviour resulting from reading. Teacher should cluster the words according to specific activity (shopping, school going).

Techniques for Peaching Reading Comprehension

1. Baumann & Johnson (1984) suggest helping students develop branching trees by clustering words according to association, to improve word comprehension e.g., ball can be associated with catch and throw.

- 2. It is important to teach learners vocabulary words that lend meaning to a parograph by describing when things occur, e.g., "to begin with" 'next' finally.
- 3. The ability of students to identify key words and main ideas in a sentence or caragraph is an important skill. Underlining and colour coding the main ideas draws students. Litention.
- 4. Teaching retarded learners the trinking process that accompanies reading comprehension may help them grasp some more difficult skills. Teacher's question " can you prove it" stimulate the students interest in reading.
- 5. Role playing in stories may help them pay more attention to the details of the text.
- fhe pictures can accompany the sequence of the events and students can practice placing the pictures in sequence.
- 7. Kann (1983) developed the method of 'repeated reading' that requires a student and teacher to read a pashage aloud cogether several times. It improves the fluency and understanding.
- 3. Teacher should due learners about the content of a pas age or story prior to instruction or reading (Wilson, 1983).

Teaching writing Skills to R. tarded Learners: Preliminary Writing:

Friting has been found too difficult for retarded children of MA (2 to $3\frac{1}{2}$ years). They scribble on the exercise book, slate or plack-board

and later on they play at drawing lines and circles or splash with colours.

"Scribble" patterns precede writing as a baby's babbling precedes speech. Free scribble should at first be encouraged. They may like to scribble on the wall, door, window or floor. Scribbling stage for 2 to 4 years olds is characterized by (1) Disordered Movements. It is a kinesthetic experience.

There is no control of movements.

(2) Controlled Movements. The child makes repeated movements and there is evidence of some establishment of co-ordination between vasual and motor activity.

The most important factorr in terching "writing" is the expansion of the child's experimental background through:

- a) Outings
- b) Picture Book reading
- c) Utilising the child's own voc ulary.

Even if it is only a "Scribble" a piece of "Writing" can be hung on the wall for all to see or to be taken home to grace a prominent wall in the house for all to admire. Whether his writing soells "Dog" or "Cat" or "Mary" or just scribble, it doesn't matter. It is his personal achievement and a sign of development. The everage 2 year old should be able to make a vertical stroke. He has greater difficulty in inicatively producing horizontal stroke. At the age of 3 he should be able to copy a circle from a model. He should also develop

the concept of "beginning and end" his circle. At 4 years he should be able to coly the cross by making two straight right-angle str kes. The copy of a triangle is a little more diff c lt. At the age of 5 years the average child can comy inth a square and a triangle but shows an inability to copy a diamond. It has been found that the majority of mentally handicapped children have the ability to write when they are mentally ready to write as long as they have had considerable experience in drawing, painting and pencil manipulation. Consequently early em hacis on motor co-ordination would greatly assist the retarded child in his attempts to write. The teacher must proceed slowly, review often, give much individual nelp, be generous with praise and encurage continually . . h love and affection. Teaching steps must be smaller, more deliberate and detailed.

The brain injured child has special problems in writing. He may have both visuo and audio perceptive disturbances. They may have difficulty in visuo-motor coordination. They have be unable to copy or even trace anything with a pencil or crayon. Some of the brain injured children may encounter a great deal of difficulty in making the proper height of letters. A brain-injured child may be unable to slow down and he may scribble all over the paper. The paper does not offer sufficient resistance to the pencil or crayon. Roll out some modelling clay inthe bottom of a rectangular shallow pan, let him copy the letter or simple design in the clay by using a stylue or a wooden stick like a sharpened pencil.

waiting to recorded learners.

10. Peer tutor help in teaching, reading and

counor read independently,

gastat destring nooks improver comprehension and

effitudes in reading.

9. Using talking books improves comprehension and

8. Reading aloud frequently creates positive:

drawing arrows and underlining.

7. Pairing picture cases with sounds, colour coding,

6. Learning phonic rules - dropping 'Y' and 'ing'.

sports to spelling and underline these words.

5. Reading and spelling should be together. Students

g story.

4. Team of students dan work together to finish

to be finished by supplying main ideas, gradually made the numbers of words provided by the teacher.

3. Providing uncompleted sentences that are required

timer ers tedt sendet des betefamennu nathimers

esureuces.

a list of words, that they can use to form

S. Providing students with deficit vocabularly,

work with fun.

micro computer as very useful to complete their apelling, punctuation and other skills can find

rearners who have found writing too difficult

Teaching Writing Skills to Retarded Learners:

frace with their tings soud sudbes and then begin

In writing, the children of MA 4 to 5 years

Mriting hells on signing of teansition usually comes in advance of writing. writing lags behind speech development. Reading ability can be demonstrated or experienced in activities. Usually recognise as "Sight Words" inthat reading and which memory, should be this which they have learnt to will learn to write, first from copy and later from become the writing vacabulary. The words which pupils the reading programme. The reading vocabulary should related to other areas of the curriculum, particularly most of the writing in the class should be closely and drawing maynot r. ed all. To solve this problem, cannot write, while of her who take incerest in writing upto the same level to that. Some learn to read and pe two droups of calldran as all of them do not come dradually the child letrns to copy sentences. There may tor learning "spacing between words" are used. Very lined books marked at shout one & half inches intervals The squares are gradually made smaller. After that double children hold a pencil ind commerce to write in a book. adneres on a pank book, and with great pleasure the this has been accomplished, the teacher draws large to write letters on inc exercise book or slate. After

strengthens an accepted form of social communication.

trom picture symbols to word symbols and as such it

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Teaching Retarded Learners the Number Concepts:

and the state of the state of the state of

Number Concept:

The mentally handicapped are marked by backward in number concept. The first idea in number is just that of 'one and 'many'. A picture of one pencil in a box and another picture of many pencils in a box, and concrete objects such as one bead to play with and many beads, help to convey the meaning to the child. For learning specific numbers the little ones just slide beads on frame this way and that way and call up to 4 or 5.

For children (Man 4 to 6 years), numbers can be learnt in many ways - (a) children standing in a row with numbers instead of names from 1 to 10.

- (a) Counting fingers.
- (b) Counting beads, blocks, sticks, marbles, etc.
- (c) Counting stairs while going up and down.
- (d) Sorting equal number of sticks into different boxes.
- (e) Threading beads in different colours, 1 red, 2 yellow, 3 blue, 4 green, 5 pink and so on.

Numbers from 1 to 10 seem to take such a long time. Numbers after 10 are learnt quicker except at the change from 19 to 20, 29 to 30, 39 to 40 and se on.

Once the numbers are learnt, counting and sums are learnt in graded stages.

A variety of blocks, beads, pags, counters, shells, sticks, counters are to be used to make the child familiar with number concept and the composition of numbers.

Children (MA 7 to 10 years) learn measuring with liquid and dry measures, with centimetres, metres, feet and yards, and visualist short distances and distances of a kilometre by exam less of familiar places like temple, church, shop, etc. Shopping with real money at a small canteen or so to mery shop in school forms a basis for practical number work and the use of numbers in practical life.

Step 7:

To calculate the remaining sum of a rupess after buying an article of volue under one rupes.

Step 1 Pre-Requisit s:

- Mental $\log 2 \approx 3\frac{1}{2}$ years.
- One word speccu.
- Can pick up to coin with fingers or can point to the coin.

Method :

When the child storts naming the articles like wen, pencil, rubber, end, plate, fan, spoon, etc. he can start identifying the coins (and rupee notes) as money. He can be asked but is this?" and he would answer "Noney". Occas) anally he is given a chance to exchange the coin for a candy or a toy and thus he will of the id a toy any can buy.

Step 2 Pre-Requisites:

- Two word speech.
- Some idea regurding shape, size, etc.
- MA 3 to 6 years.

Method:

Give the studenrs a bunch of various coins.

(Explain to him the size, shape, etc. of 10 paise coin.

Let him feel it and understand it.

Ask him to pick up similar coins from a bunch. Every time he picks up the coin he should name it "10 paise".

See that he picks up the correct coins. Once he is conversant with 10 marse coin, same exercise can be repeated for 5 paise, 20 paise, 25 paise, 50 paise and so on and thus he can be made to identify various coins.

Step 3 Pre-Requisites:

- Mental Age 4 to 6 years.
- Fo speak 10-20-30-40 - 100 in chronological order.

Method:

The child is mid; to recite and/or write 10-20-30-40-50-60-70-80-90-100 in chronological order without mistake. He is then iven 10 coins of 10 paise each and made to recite the same as before but at every step he puts one coin from his hand on to the ground (or into the teacher's hand). Thus he learns the addition of coins of 10 paise.

Step 4 Pre-Requisites:

- Mental Age 6 to 7 years.
- To speak 15-25-35-45 - 95 in chronological order.

Method:

He is made to rite as follows with proper explanation and made to understand this well.

$$15 = 10 + 5$$

$$25 = 10 + 10 \div 5$$

$$35 = 10 + 10 + 10 + 5$$

Then instead of only writing he takes up the coins of that value and thus he starts addition of 5 to multiplication of 10.

Step 5 Pre-Requisites:

- Mental Age 7 to 8 years.
- Counting up to 100.

Method:

= 100 paise = 1 Rupee.

$$10 + 10 + 10 + 10 + 10 = 50 = 50$$
 paise coin.

10 + 10 = 20 = 20 paise coin.

10 + 10 + 5 = 25 = 25 paise.coin.

5 + 5 = 10 = 10 paise.coin.

All this is to be taught by taking the exact coins in hand and making equalisation of two sides.

Step 6 Pre-Requisites:

- Knowledge regarding the previous steps in "money training".

Method :

Ask him to give a particular 'sum' from the bunch of coins. To make him understand the various combinations, see that certain coins are not kept in the bunch - may when 50 maise are demanded, coin of 50 paise is not kept in bunch-so the child is compelled to collect 5 coins of 10 paise and so on.

Step 7 Pre-Requisites:

- Knowledge of previous steps in money counting.

Method:

Open an artific all shop. Let the student be the customer. He buys the article of a particular value and hands over to the shopkeeper (teacher) a rupee. The teacher gives the remaining amount by narrating the further counting from the value of the article to 100. Say, an article of 20 paise is purchased. Then the teacher gives a 10 paise coin and s ys 20 + 10 i.e. 30 and goes on saying 40-50-67-70-80-90-100 every time giving a 10 paise coin upto 100. Here he is not asked about subtraction at all. Then the position of teacher is interchanged with publice, pupil becomes the shopkeeper.

Teaching Arithmatic :

The thrust of the ching arithmatic to retarded learners has been to and teaching them as functional skills. Schwartz and Bada (1983) defined functional muth (arithmatic) as "... uses of mathematics needed for vocational, consumer, ocial, recreational and home making activities."

Identifying Potential An ual Goals:

Arithmatic Level I: Numbers, counting and place value:
Mildly retarded:-

- 1. Matches the correct numbraks with pictured sets of objects.
- 2. Says the correct numbers when presented with sets of objects upto 10.
- 3. Writes numbers from 1 to 100 when directed.
- 4. Writes numbers that are either prior to or follow a giv. a number upto 100.
- 5. Writes the words "odd" or 'even' up to 10.
- 6. Id ntifies place values up to the nundredth place.
- 7. Writes up to 100 when presented with oral stimuli.

Mcderately Retarded:

Same as Mildly Retarded learners.

Saverely Retarded:

1. Matches correct numbers with pictured sets of objects up to 10.

Operations Mildly Retarded:

- Memorizes basic addition and subtraction from 0 to 10.
- 2. Computes one-digit plus one-digit numbers and two-digit 'lus two-digit numbers without and with regrouping.
- 3. Computes one-digit minus one-digit numbers and two-digit minus two-digit numbers with and without regrouping.
- Memorizes basic multiplication facts.
- 5. Computes two-digit times two-digit numbers both with and without regrouping.
- 6. Memorizes basic division facts.
- 7. Computes three-digit divided by two-digit numbers with and without borrowing.

Moderately Retarded :

1. Computes basic addition and subtraction problems with and without regrouping.

Severely Retarded :

Adds and subtracts sets of objects up to 10.

Level 2:

Measurement

Mildly Retarded:

- Compares objects on the basis of length (longer and shorter).
- Compares weight of objects using balance.
- Measures liqui and dry volumes.
- Measures temps: twe in home and vocational setting.

Moderately and Several Retarded:

1. Measures units of weight, volume and temperature in home and vocacional settings using adaptations such as colour coding or picture representation.

Money

Mildly Patarded:

- 1. Identifies coins and currencies.
- Demonstrates the value of coins and currencies.
- 3. Makes change for currency.
- 4. Computes money roblems, uses addition, subtraction to compute money problems involving making change for various coin and currency denominations.
- 5. Successfully uses money in a variety of transactions.

Moderately and Severely Retarded:

1. Uses coins and currencies upto %.10/- in a variety of transactions.

Time

Mildly and Moderately accorded:

- Names days of the week and months and knows the year.
- 2. Indicates time of the day by naming activities such as breaking, lunch.
- Correctly us p the calender to locate dates.
- 4. Tells time using digital clock by hour, half hour, quarter hour and rainute.
- 5. Understands vic dions, holidays and week ends.

Cover ly R rededs

- 1) Understands the relationsh as of time and lend activities.
- 2) inlate time of day to soccific activity morning -

TEACHING OPERATIONS

Frustration in teaching operation addition etc. may occur when teachers attempt to teach the operation before the student has a full grash of the concepts involved. Therefore, truchers should be certain that students have a good rash of place values and number to object sets before resenting problems dealing with operations.

- 1. Have students practice with concrete objects such as blocks or stru, placing some in "ones" piles and some in "tens" piles (Sander, 1981). Students can practice placing 10 blocks in the "ones" pile and then placing one block to represent the 10 in the "tens" pile. For each skill teachers wish to present, they should consider moving their students from the concrete to the semiconcrete, and eventually to the abstract level (Reisman, 1982). Therefore, this activity can be repeated using marks on pager in place of blocks (semiconcrete) and finally using numbers in place of either objects or written cues (abstract) (Thornton, 1979).
- 2. Ferformanc. ca.s (Morsink, 1984) should be used extensively with relarded learners, assisting them in remembering the steps in the operation. For example, a teacher might choose to use colored dots, each dot signifying one of the successive steps to subtracting with regreeping (Bellamy, Greiner, & Buttars, 1974, Brown & Jellamy, 1972).
- 3. Marsh, Price, and Smith (1983) presented an interesting method of spisting students to add and subtract using a semiconcrete technique. They suggested an activity where teachers color code dots on numbers

representing their Protecties. The students then use the dots to count out the answer to the problem.

- 4. Precision teaching (White & Haring, 1980) advectors the use of time! exercises as a technique to improve the perform nea of handicapped learners. Children are generally competitive and enjoy trying to "beat" the number of correct problems they can compute per minute. (Additional information about rate can be found in Chapter Four). Frillaman and Abbott(1983) have found that using times exercises can improve the ability of learners to memorize posic facts (e.g., 6 + 2 or 5 x 5).
- 5. Multiplication facts are often most difficult for returded students to learn (Cowat, 1978). If many methods of instruction have been tried with little success, the teacher should consider allowing the student to carry a multiplication table for use in community activities. Indeed tables are often given free by banks and the wallst size.
- following trick to to on the difficulties to learn 9 stable. First, the stidint subtracts 1 from the multiplier and places on number in the tens digit of the answer. The next so involves adding to the number obtained in stable 9 is reached.

$$9 \times 7 = \underline{63}$$
 $9 \times 8 = \underline{72}$

$$-1 + 3 + 1 + 2$$

$$7 \quad 9$$

- 7. Learning centure allow students to interact with semiconcrete mat rials depicting various math concepts or functional math applications (Broome & Wambold, 1977). For example, Ashlock (1982) presented a game that incorpor the chips whose colors represent various place values. Times such as this can be incorporated into a learning center allowing students to practice math concepts in a less demanding, more enjoyable setting.
- 8. The pocket colorlator is an effective aid for retarded learners to continue to demonstrate severe deficits in basic operations (Mulhern & Koller, 1977). Students should learn assic care of pocket calculators and how to use them in a veriety of situations. Colored marks can be made on the calculator to highlight various signs or due the learner to the type of operation needed. Calculators that also rovide a hard copy printour are now available at relatively low prices. These units can be very helpful to learners because the printour demonstrates the entire operation instead of just providing the answer.
- 9. A mini reference book can be developed for students that translates common vocabulary and phrases found in word problems and daily living tasks into operational functions (e.g., "which is cheaper" = subtract, "gives to another" = add).

Techniques for Teaching Time and Money

Teaching the ability to tell time accurately and use money both efficiently and effectively are high-priority goals for many retarded learners (Brock, 1979). These skills, more than some others,

require intensive trues ag in relation to community and daily school activities. Whenever possible, teachers should start by using concrete events or tasks that students can associate with the skill (e.g., 12 p.m. is lunch time; 40 cenes we I buy a soda from a vending machine). Most moderat by and severely retarded learners will often associate both time and money with concrete events. Mildly retarded learners can learn to compute time and money problems at the semiconcrete level and eventally move to more abstract activities such as but, ting and time management (Thurlow & Turnure, 1977).

1) Reisman (1952) suggested using a circular number line to help students remember the relationship between minutes and hours. Number lines have also been successful in teaching money skills (Frank, 1978).

2) Students can levelop a time log, pairing drawing of certain times with a common activity.

9 a.m., Physical Education (PE)

- 3) Standard circles can be paired with digital clocks for as many activities as possible.
- 4) For mome malerately and severely retarded learners, telling time to the minute may not be an appropriate just. Small (1983) reported a procedure developed by O'Brien . Southern Illinois University

that taught retarded 1 erners to tell time by the quarter hour and then say, "it's about " to the nearest 15 minutes.

- 5) Mercer and Mercer (1985) have sug ested the use of money cards to teach making change. Teachers can develop a card took a lps students estimate the amount of change they should receive. For example, a student shopping with \$5.00 can carry a card with five circles, each representing \$1.00. If the student spends \$3.50, the stolent marks three circles and part of a fourth, leaving one whole and part of one circle left. This cause the student that \$1.00 and some change should be received in return for the \$5.00.
- 6) Task analyzin, time-telling and presenting students with single small steps has proved to be effective (Barcott, 1973). For example, a first step is counting minutes on clock. This must be mastered before a student can move on to the next step of counting minutes by five (Finkel & Zimmerman, 1976).
- 7) Bellamy and sutters (1975) successfully taught moderately retailed students to count change by first teaching them note counting skills. Although these skills were not taught in functional settings, the methods of task segmencing and use of picture cues to help the students match coin equivalents proved to be successful.

- 8) Paying your, r students with real money for classroom activiti a can be an effective prerequisite to teaching more advised inches management skills (Langone, 1981). As see into gain these skills, more dvanced onces (e.g. on okbook, banking) can be taught using larger amount of oney (Orr, 1977). Money for those activities can be brained from donations and class money-making or gots.
 - 9) Wheeler, For , Nietupski, Loomis, and Brown (1980) presunted a comprehensive program designed to teach retarded learners to use calculators when shopping. Basically, the stills were task analyzed and translated into objectives that walld allow students to practice the skills in n-tural settings. Students were trught to label, loca , and obtain a variety of grocery items. In a colin, they were taught to use pockat calculators to and the total amount for the nontaxable food items they obtained and subtract the total from the amount of money they carried. These skills were taught using on a raid correction procedures such as mudeling, vurbal correction using direct and indirect cues, jesturel cues, and pictorial cues. Similar techniques h ve proved successful in other studies (3m ets & Kleinloog, 1983).
 - complex coin equalvit new skills has also proven effective (Trace, Cuvo, & Criswell, 1977). Students were taught to link behaviors such as locating the vending machine, selecting an item, and choosing the depropriate coins. If all r techniques involving chaining, cusing, and a inforcement have also been successful in teaching c in equivalency (e.g.Borakeve & Cuvo, 1977; Lawe 2 Tivo, 1976).

11) Students are pair to learn money skills faster when the objectives are paired with naturally occurring contingencies. For example, programs to teach money skills have been successful when prired with other independent living shills such as eating at restaurants (Van den Pol, et al., 1981) and shooping skills (Nietupski, Certo, Pumpin, & Belmore, 1976).

Techniques for Teaching Measurement

Teaching measu ment skills to retarded learners can be facilitated when a majority of instruction involves activities all wing students to manipulate objects. Therefore, activities such as cooking and those related to vocaci had tasks lend themselves to measurement instruction (Schwartz & Budd, 1983).

- 1. Volume, weight, and liner measurement may best be taught using or many concrete materials as possible (Polloway, Payne, Patton, & Payne, 1985). For example, when changing measures or comparing weights, the use of actual materials may help the students grasp the concepts of more includes, heavier and lighter.
- 2. Activities allow students to explore novel materials or activiti s that result in a product may help students learn the skills for functional use. For example, Aiello (1)76) allowed students to use tools while learning the metric system. Similarly, Miller (1978) taught matrices to EMR students while constructing projects in a shop class.
- 3. Having studints constantly compare metric measurements with English measurements helps them to at least be able to compare units visually

(Sengstock & Wyatt, 1976). The basis for teaching metrics is to be sure the ptodents have thoroughly learned the English system before the comparison process is taught (Etlinger & Oglenee, 1978).

- 4. Students appear to learn measurement skills best when they are paired with activities that interest them. Therefore, measuring objects found around the home and measuring in relationship to cooking appear to be highly motivating methods for teaching (Marpet and Prentky, 1974).
- 5. Color coding and pictorial cues can be effective for teaching measurement skills. They are also effective adaptations for assisting stills in learning more advinced home management and vocational skills if they have not been able to learn to measure. For example, a moderately retarded learner may be able to participate in an agricultural vocational education class learning the skills of a feed lot in if color coding is used to help him learn to mix cattle feed (Langone & Gill, 1984).

KEY CONCLETS

- * Methods for teaching aritam tic skills should help students understand the concepts and motivate them to succeed.
- * Token reinforcement sys ent n ve been successful in motivating students to succeed in arithmetic.
- * Functional or community -created math skills are themselves highly motivates to statents.
- * Stadents should begin wto and ete activities, wing to semiconcrete of them on to abstract activities.

PREVENTION OF MENTAL HANDICAP

Dr. S.K. Goel, Reader, R.C.E., Bhubaneswar.

Prevention of mental handicap is of the first importance and needs top priority in national health planning programmes. It entails:

- Provision of comprehensive medical and health services to all, especially, adequate parental, natal and early post-natal care.
- 2. Improvement of general socio-economic condition of the population.
- Public education regarding the risks of consanguineous marriages, i.e., marriages between blood
 relatives, as there is high risk of mental handicap in the children of such marriages than in
 children of unrelated parents. Genetic advice
 should also be available to families where any
 member of the family suffers from any inheritted
 disease.
 - 4. Public education regarding the etiology of mental handicap.
 - 5. Planning of the family to ensure that child bearing should be limited to the maternal ages between 20 and 30 years.
 - 6. Improving nutrition of the pregnant woman.
 - 7. Care of the pregnant mother, her protection from infection, unnecessary medication, X-Ray exposure, injury and anoxia.
 - 8. Provision of an adequate number of antenatal clinics for check-ups and advice. Provision of home care whenever necessary.

- 9. Provision of good obstetric services. Supervision of deliveries by adequately trained personnel.

 Availability of referral services for rapid transfer of any abnormal deliveries to centres for expert advise and intensive care.
- 10. Adequate care of the meanate, infant, pre-school and school child.
- 11. Adequate nutrition for the child.
- 12. Early immunization against all preventible diseases for which immunizing agents are available (especially B.C.G. vaccine for tuberculosis).
- 13. Good environmental sanitation and health education.

 Early home stimulation programmes for disadvantaged groups. Preventive measures such as boilingur or chlorination of drinking water, protection of food from flies and personal cleanliness.
- 14. Protection of children from injury and accidents.

 Planning of housing colonies and a central playfield.
- 15. Protection of children from poisonous, dangerous substances, environmental pollutants, such as lead, mercury and other hazards.
- 16. Public education regarding parental care and health hazards.
- 17. Prenatal diagnosis of suspected metabolic disease by aminocentesis. Medical termination of pregnancy following diagnosis, if necessary.
- 18. Controlling metabolic and endocrine diseases, if diagnosed early, so that mental handicap does not occur or can be minimised. Such conditions include phenylketonuria (PKU), galactosemia, cretinism, etc..

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- 19. Pre-school, day care, adolescent and home intervention programmes for children from low sucioeconomic status homes.
- 20. Centres for prenatal diagnosis, genetic counselling and treatment. Early detection and screening programmes to identify children at risk of mental handicap.
- 21. Early and adequate treatment where disease cannot be prevented. This applies especially to prevention of dehydration in diarrhoea and rehydration measures, and treatment of meningitis and encephalitis.

LEARNING DISABILITY :

CONCEPT, ETIOLOGY, CHARACTERISTICS, IDENTIFICATION INSTRUCTION

Prof. K.C. Panda

CONCEPT :

National Advisory Committee on Handicapped Children (U.S.A.) defines learning disability as follows:

- 1. LD children exhibit <u>disorder in one or more basis</u>

 <u>psychological processes</u> involved in understanding

 and in using spoken or written languages.
- These disorders are manifested in listening, thinking, talking, reading, writing, spelling, and arithmetic.
- 3. They include conditions which are feferred to as perceptual problems, brain injury, minimal brain dysfunction, dyslexia, developmental aphasia, etc..
- 4. They do not include learning problems which are primarily due to visual, hearing, or motor handicaps, to mental retardation, emotional disturbance, or to environmental disadvantages.

CAUSES :

(i) Organically based causes: LD arises because of minimal brain dysfunction (MBD). The dysfunction occurs in central nervous system which consists of brain and the spinal cord. The malfunctioning is not due to damage, but due to dysfunction which is only minimal. Minimal brain dysfunction arises due to (a) cerebral hemorrage, cerebral disease because of high fever, head injury, (b) intrutering environment-premature birth, anoxia, physical trauma,

- (c) constitutional genetic neurochemical dysfunction. It must be noted that all brain dysfunctions are not associated with learning disability, and all types of learning disability do not arise due to brain dysfunction.
- (2) Environmentally based causes: Learning disability may be caused due to insufficient early experience and emotional disturbance.

CHARACTERISTICS OF LD CHILDREN:

Motor Activity:

Hyperactivity: - constantly engated in movement, unable to sit still, too much of talking in the class, very much inattentive.

Hypoactivity - (reverse of hyperactivity) - lethargic, quiet, passive.

Incoordination— physical awakwardness, poor motor integration, poor activities in running, catching, skipping, and jumping; walking is rigid and stiff; poor performance in writing, drawing; frequent falls, stubbling, and clumsy behaviour.

Perserveration - involuntary continuation of behaviour;
this behaviour is witnessed in speaking,
writing, drawing, pointing, and oral
reading; incorrent spelling, repetition
of errors.

Disorders of Emotionality:

 He is cuite and obedient, but day-dreams and cannot read.

- 2. He has frequent temper outbursts, sometimes for no apparent reason.
- He is nervous; his attention is difficult to hold.
- 4. He jumps from one thing to another, and minds everyone's business but his own.
- 5. He lacks self control, cannot work with other children, teaches them constantly.
- 6. He is emotionally labile and unstable.

Emotional instability arises mainly due to prolonged dependency on the mother, lack of contact with the outside world which generates frustrations.

Disorders of Perception:

- He is unable to identify, discriminate and interprete, sensation.
- 2. He has poor visual decoding (unable to reproduce geometric forms accurately, figure-ground confusions, letter reversals and retations).
- 3. He has poor auditory decoding (inability to recognise tunes, to differentiate between sounds).
- 4. He cannot identify familiar objects by touch alone (cutaneous misperception).
- 5. He has poor kinesthetic and vestibular perception (problems in coordination, movement, directionality, space orientation, and balance, difficulties in perception lead to difficulties in concept formation, abstraction ability, cognitive ability, and language ability).

Disorders of Symbolisation:

- He has poor receptive-auditory ability (poor understanding of spoken symbols, requests or repetition, echolalie, confusion of directions and commands).
- He exhibits receptive-visual difficulty (subvocalise reading, read without understanding).

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- 3. He has poor expressive-vocal ability (disorganised thought, inadequate syntax, and dearth of ideas for expression).
- 4. He manifests expressive-motor difficulties (spellin disorders, drawing disorders, omission and reversal of letters, omission of whole words).

Disorders of Attention :

- The child cannot sustain his attention for the required amount of time.
- 2. He is unable to attend to the relevant and ignore the irrelevant. He may be attracted to every stimulus that surrounds him.
- 3. He can be diverted easily from one topic to another.
- 4. He may provide excessive attention to unimportant details while disregarding the essentials (attends to the page number than to the printed matter or the picture on the page).

Disorders of Memory :

- 1. Disorders of memory involve difficulty in the assimilation, storage, and retrieval of information and may be associated with visual, auditory, or other learning processes.
- 2. The LD child has difficulty in reproducing rhythm patterns, sequence of digits, words, or phrases.
- He has difficulty in revisualising letters, words or forms.
- 4. Both the short-term and the long-term memory of the LD child are poor.
- 5. He fails to see the relationship between his present and past experiences.

IDENTIFICATION :

- 1. Near average, average, or above average in intellectual ability.
- Disinhibition (impulsive talk and/or action).

- Inattention (inability to focus on one activity).
- 4. Distractability (attention disturbed by noise, movement, visual stimuli, or one's thoughts).
- 5. Perseveration (inability to shift easily from one activity to another).
- 6. Quick mental fatigue for sustained performance on tasks.
- 7. Social misperception (immature or inappropriate responses in social encounters).
- 8. Reversing, rotating, and/or transposing letters or words in reading and writing.
- 9. Spatial difficulties (problems with orientation and directionality).
- 10. Difficulty in understanding and/or remembering oral messages.
- 11. Difficulty in interpreting and/or remembering visual messages.
- 12. Language difficulties (problems with word-finding and word-organising ability.
- 13. Confused or disorganised approach to task performance, employing an inefficient traal-and-error method.
- 14. Thinking problems (difficulty with abstract organisation of ideas).
- 15. Generally poor fine motor coordination
- 16. Clumsiness.

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- 17. Hyperactivity (unusually high rate of purposeless motor activity).
- 18. Hypoactivity (unusually low amount and rate of motor activity).

INSTRUCTIONAL TECHNIQUES : (Understanding & Remembering) :

- 1. Use short, brief directions
- Use consistent language
- Write directions or steps on the chalkboard or a poster.
- 4. Alternate the use of colors for each step in a series of directions.
- Record directions on a cassettee tape.
- 6. Use diagrams or pictorial illustrations.
- Provide a completed example.

Providing Structure:

- 1. Have the pupil keep a daily record of everything(s) he does with the amount of time engaged in the activities.
- 2. Have the pupil list all future events that need to scheduled. Provide a hypothetical list to suggest possible events.
- 3. After the pupil has an idea of how time is spent and future events that must be planned, it is time to develop a weekly schedule.
- 4. Once the weekly & schedule is being planned and implemented successfully, the pupil can begin to keep a monthly schedule.
- 5. Pupils in the upper grades may find useful a schedule from that provides for specific subject matter assignments and various types of activities.

Thinking Skills

- Have the student collect data by reading, listening, and observing.
- 2. Have the student discriminate differences and similarities in the data. Teacher questioning can be used to prod the pupil until the ability to make these discriminations improve.
- Have the pupil categorise and classify the data.
 Lebelling is important during this stage.

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- 4. Have the pupil recategorise and classify the data in other ways. This continuous reorganisation and restructuring is necessary to integrate new information and new experiences into the pupil's mental structures.
- Have the pupil make predictions based on the data.
- 6. Have the pupil generate alternative predictions using the same data.
- 7. Have the pupil evaluate the alternative predictions by comparing and contrasting possible outcomes and their effects.

Improving Memory:

- Have pupils repeat telephone numbers and street addresses of emergency service facilities (police, fire, etc.).
- 2. Have pupils learn songs by listening to the words and tunes.
- 3. Play games in which the first pupil makes a statement, the next pupil repeats that and adds a statement, the third pupil repeats those statements and adds one, and so on.
- 4. Have pupils make up rhymes related to subject matter, such as, 'In 1492 Columbus sailed the ocean blue".
- Have pupils repeat oral directions.
- 6. Have pupils resequence cartoon strips (without words) that have been cut apart. This forces them to observe details in the pictures.
- 7. Have pupils describe configurations of words that are similar. By comparing then with them, pupils would be forced to discriminate that them is slightly longer than then because it has one more hump.
- 8. Have pupils repeat the sequence for a recipe that they have read.
- Use tachistoscopic devices.

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- 10. Have the pupil practise attending to larger units at one time. For instance, some try to copy one syllable at a time. Encourage the pupil to increase the length of the visual stimulus that she holds in her mind as she writes it down.
- Help the pupil to practise internal auditorisation as an adjunct to visual memory; that is, have the pupil say the letters or words to herself while she is translating the written information.
- 12. Write every other item on the chalkboard with a different colour chalk. This helps the pupil to "find her place".
- 13. Allow the pupil to copy another pupil's work. Some of these pupils perform better with paper-to-paper copying than with chalkboard-to-paper copying.

Arithmetic:

- 1. Establish routines for arithmetic instruction.
- Use consistent language until the process is mastered.
- Provide numerous opportunities to apply new skills.
- 4. Ensure the meaningfulness of the material.
- Employ concrete, manipulative learning materials.

Spelling:

- 1. Have pupils correct their tests under the supervision of the teacher.
- The pre-test-study-test method is best.
- Words presented in single-column print are most effective.
- 4. Learning words by syllables is less effective than a synthetic word approach.
- 5. Proof reading skills improve spelling achievement.
- 6. Review and/or reteaching on a consistent basis improves retention.
- 7. A systematic technique to study unknown spelling words must be tought.

TABLE - 1

	TABLE - I
Reading Approach	Advantages for Disadvantages for learning learning Disabled Disabled Pupils pupils
Basal ·	1. Comprehensive 2. Controlled vocabulary 3. Sequential introduction of skills 4. Reinforcement of skills 5. Diagnostic and evaluative material usually provided. 4. Lack of provision for processing deficits. 5. No choice of analytic or synthetic phohics instruction. 6. Subject to repetition of the same stories and methods resulting from failure.
Phònics	1. Effective decoding1. Not effective for pupils technique for with auditory deficits pupils with good 2. May be taught in isolation additory abili- 3. Comprehension neglected ties 4. Invariance in English language may cause confusion.
Linguistic	1. Contwol for irregular spelling in initial stages comprehension in initial stages 2. Vocabulary controlled for regular elements and does not utilize spoken language of pupil.
Language experience	1. Motivates with personal stories language level 2. Uses pupils' oral 2. Lacks structured, systematic, approach to skill development. 3. Can incorporate specific skill development. 4. Can include language arts skills. 5. Good for pupils with good visualmotor abilities

Reading Approach	Advantages for Learning Disabled pupils	Disadvantages for Learning Disabled Pupils.
Progra- mmed	 Small sequential steps Immediate feedback 	 Lacks direct instruction May be confusing format May be borring because of consistency.
Multi- sensory	1. Uses more than one sensory input to get messages to the brain. 2. Can use an analystic approach (Frenald) or a synthetic approach (Gillingham-Stillman)	 Lack of sequential skill development in some programs. Sensory overload experienced by some pupils.
Rebus	1. Uses a rebus (picture) instead of a word to simplify initial stages of reading 2. Well-structured materials. 3. Provides for transition to traditional print materials	1. Format appearing immature for older pupils.

Handwriting :

- 1. Tape alphabet forms to the floor. Have pupils walk or hop around the form. Have them reproduce the form with coloured yarn.
- 2. Have pupils use a stick (broom handle) and their bodies to form the letters.
- 3. Write each letter in a paper plate with a red marker. Cover with cornmeal. Have pupils write the letter with their fingers. The red letter will provide feedback for correct formation.
- 4. Coat cooked spaghettí with vegetable oil. Have pupils form letters with the spagnetti. Coloured letter forms can be used as a guide.

: 11 :

- 5. Spray shawing cream can be used to form large letters. Butcher paper provides a suitable surface.
- 6. Have pupils use a flashlight beam to trace letters on a chalkboard.
- Have pupils form letters in wet fingerpaint.
- 8. Use coloured directional cues such as green arrows and red dots.
- 9. Teach manuscript letter forms that are oval and slanted slightly. This will encourage left-to-right progression and will facilitate transition to cursive writing.
- 10. Teach pupils to start all lower-case cursive letters from the line.
- 11. Help pupils to form an association for a letter they have difficulty remembering. (A=Indian tepee, W=crown).
- 12. Have pupils orally describe their movements as the letter is being written. This provides auditory reinforcement.

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Introduction

Integrated education for the special needs children is a major concern of educators in recent years. The Education Act 1981, the Warnock Report, 1978 of England, Act 118 of Italian legislation, PL 94-142 of United States and NPE of its POA, 1986 described the topic as "the central contemporary issue in special education". In Indian context, mainstreaming education for the hearing impaired individual too requires a war footing efforts. Because at present the coverage for education is less than 5 percent. In order to achieve the goal of universalisation of elementary education, it requires to adequately meet the education of the hearing impaired children in mainstreaming system.

Mainstreaming education of the hearing impaired children (HIC) is a debatable issue. When we think of their integration, some basic questions come to our mind-"Why should we educate them with the nr mal peers?"

"What benefit will they derive?" "How will it be possible?"

"What are its requirements?" Is mainstreaming an alternative or compulsory and so on.

This paper examines some of these issues.

The Concept of mainstreaming Equation of the

Hearing Impaired Children.

The term mainstreaming in United States, integration in UK and normalisation in Scandanavian countries have the common denominator of educating children with special need, as far as possible.

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in ordinary schools. In its widest use "mainstreaming" means combination of different elements into a unity. It is an act of combination of a segregated group with the united whole. In relation to the special needs children, integration means educating these group of children in an ordinary school in a least restrictive environment. That means it is a process and product of interaction of helaring and hearing impaired children (HIC) in the normal school environment when ever possible. It is a process of education of handicapped and non-handicapped children together within the 'natural' environment in which they can have the maximum association of increasing participation in the educational and social life or school.

In order to achieve the integration in full measure, it must be viewed comprehensively. Warnock(1987) distinguishes three main forms of integration in terms of association, locational; social; and functional, locational integration for the hearing impaired children exists where special units or classes are set up in ordinary school. The social integration is a form where special needs children attend a special class to share their but of classrom acceptivities with other children. Functional integration is the fullest form of integration. A similar form of integration is offered by a Swedish thinker Doder in 1980. He offered four different forms of integration: physical, functional social and societal. These forms of integration model are closely related with Warnock's model of integration.

From the above discussion it can be viewed that integration does not mean the establishment of locational or physical model alone. Integrated education is primarily concerned with the individual development as a whole. It provides numerous opportunities for interaction between children with special needs and their peers at the different stages for the school day; before and after school; assembly; classroom; lunch break; public places like temple etc.

Benefits of mainstreaming '

In social and emotional dimension, there is a broad consensus among teachers, parents and children themselves that they have benefited in terms of these developments. They develop the self confidence and independence, integrated education promotes a realistic acceptance for the individuals handicapping condition. Friendly relationship between hearing and hearing impaired children develops and negative relationships such as teasing are comparatively rare. The incidence of unto ward behaviour and odd mannerisms is considered to have greatly lessened.

The hearing impaired children becomes increasingly self-sufficient as they experience exposure to hearing classmates, and normal hearing children learn to accept the fact that some people are handicapped and a persons disability is not the most important concern, but that human beings learn to live comfortably with individual differences.

The regular children will come to understand and accept handicapped children in a mormal manner.

Parental involvement becomes more possible.

Many parents can take an active part in educating the children in their local ordinary schools. Contact between home and school could be possible and can be organised in various ways.

In nutshell the following benefits are derived in the integrated clucation process.

- * benefit mutual interaction.
- * mrdelling 'good' social benefit and linguistic model.
- * comply with normalisation.
- * raise expectation
- * enc.uraging parental involvement
- * sharing exportise
- * maximum benefit of social normalization

Keeping in view of the above advantages, the movement of total integration was initiated by the Italian legislation one decade before. Italian ligislation Act 118 of 1971 made a clear departure from segregation with its requirement that education must take place in ordinary schools except where the child suffers from severe intellectual deficiency. In recent years the enactment of legislation many countries like Norway, Sweden, Denmark. US, UK and France have taken place to further the integration of children with special needs. In Britain this has taken the form of an amendment to the 1944. Education Act. In United States legislation there had for reaching effect on every aspect of special education with regard to integration. The Education for all Handicapped Children Act (PL 94 - 142) was enacted in 1975. With

its provisions coming into force over a period of years beginning in 1977. This is major piece of legislation which man lates national commitment to educating all children and y uth people with special needs and place them in the 'least restrictive environment'.

Disadvantages of mainstreaming Education

The approach of integrated education for the hearing impaired children is no double good. But what about the learning outcome? Can the regular teachers profitably spare their time for the hearing impaired children with their limited expertise and knowledge? Could it possible to meet the individual needs in the ordinary classroom? These issues are to be considered carefully before putting the hearing impaired children in the ordinary school.

- action', 'social acceptance' and 'imitation of behaviour of normal peers' is objected by some proponents of mainstreaming. Gowlman, Gottieb and Harrison, 1972 and Iano et al. (1977) found that non-integrated handicapped children are better accepted by their peers than integrated handicapped children are better accepted by their peers than integrated handicapped children. In this situation, if mainstreamed handicapped children are more poorly accepted by their peers, then it follows that mainstreamed classrooms are more restrictive environments than non-integrated classrooms.
- 2) There is a wrong notion that integration means making the hearing impaired children 'normal'.

 But in reality integration is a means, not an end itself.

If the residual cognitive ability of the children is properly regenerated even in special schools, they may feel comfort. Bucause their needs are unique.

- 3) The teacher pupil ration in most of the schools of the developing countries including ours is about 1:25 to 1:40. Since the size of the class is very big, the regular classroom teacher may not give individual attention to these special need children. As a result the hearing impaired children may feel bored in the regular chassroom and may create nuisance.
- 4) Most of the regular teachers of the ordinary schools have little or no knowledge about the needs of the hearing impaired children. In this situation integrated education may not be suitable for these group of children and it is also possible that the teachers may develop negative attitude toward these children.
- national curriculum is going to be implemented in our country shortly. When hearing impaired children are educated along with the normal children in ordinary school, the rate of input inthe class is comparatively lower and expected learning outcome of is also lower. In this situation the parents of the bright number children may not be inclined to send their children to the integrated school. 'Limited academic progress of the ordinary children' may be one of the major cause for which Government of U.S.3.R. have developed negative attitude towards integrated education and till today it is not in operation there.

In this contest several fundamental questions arise. Whether integrated education for the hearing impaired children should be made compulsory or it should be an optional or alternative placement? Can the hearing impaired children be able to face the challenge? These doubtlets will be cleared if we could able to compare their intellectual ability and reading level with the same age group hearing peers.

Conclusion

The World Programme of Action concerning disabled persons, 1983, the International League of Pociety, 1987. The Education Act. 1981 of England, the commitment of IYDP, 1981 declared the 'equality of opportunity' of handicapped people. They should not be segregated because of their impairement.

Every system has certain limitations. Integration of children with hearing impairement may create certain problem, but the benefit of coverage of large percentage of children can not be achieved unless integrated education is started. Integrated education is a viable solution for the developing countries like ours. Because establishment of special schools for the hearing impaired children in rural areas is impossible and educating the mild group of hearing impaired children in special schools is not profitable. It also requires a lot of financial involvement and resources.

Our NPE-PA 1986 says that there are about 800 to 100 special schools for special beeds children including the hearing impaired groups in our country. The NSSO, 1981 indicates that there are about 12 million disabled

persons in our country, out of this, at least 4.3 million disabled persons are of school going age and 1.27 million of school going population is of speech and hearing impaired group. Hence integrated education is required to be started without further delay so as to provide free and compulsory education to one and all. Otherwise the purpose of UNIVERSALISATION OF PRIMARY EDUCATION would be defeated.

Means not an end itself. It should be a preferred placement rather than a compusisory one. That means it is not required that all children are to be educated in integrated schools. Education provision must be 'appropriate' as well as being non-restrictive. If placing a child in integrated school were to result in harmful effects or to reduce the quality of education, segregated placement might be required for that children.

Placement of children in integrated schools requires careful consideration. Hence before placing a child in ordinary school, a couple of points is to be considered carefully.

1. School and Classroom organisation:

i) To ensure satisfac tory integration programme for the hearing impaired children, certain organisational activities are necessary for adoption. e.g. 'class teachers basic understanding' they should be aware, for example, that hearing impairement leads to delay in reading, speech and language development and that will influence the child's ability to develop other communicative skills.

- ii) The teachers should able to check the functioning of hearing aids and should keep extra battery/cord in the classroom.
- iii) The teachers should introduce the classmates to the consequences of hearing impairment and to helpful techniques to improve communication.
- iv) Seating arrangement is to be made properly for hearing impaired children where they can hear and lip-read best. Because speech reading or lip-reading beyond 8-10 feet is difficult for the children.
- v) To aid speech reading, the speaker should always face the hearing impaired children and avoid standing with their backs to a window or light sources. That means there should be sufficient light to the face of the speaker not to the hearing impaired child.
- vi) Exaggerated mouth movement and incomplete sentences while teaching can mislead to the hearing impaired children and it should be avoided.
- vii) Gestures, if used, should be natural, not exaggerated as excessive movement can be distracting.
- viii) It is helpful to use as many visual cues as possible. Because hearing impaired children are benefited to use eyes instead of ears to receive information.

2. Adjustment of Curriculum:

Where ever necessary, the curriculum is to be adopted and adjusted according to the individual need of the child. Because the objectives of education of both hearing and hearing impaired children will be the same. The means by which objectives are achieved may vary considerably.

3. Teaching strategies:

Suitable teaching methods is to be followed through systematic activities. Whether it may be manual, aural or oral, speech reading approach. LRS approach or multi-sensory approach, it should be followed according to the individual needs.

Integration of hearing impaired children does not mean squeeze of special schools. There should not be any competition or comparison of achievement between the special schools and integrated units. Rather it should be a preferred placement. Both special schools and mainstreaming education will exist to meet the needs of children. The hearing impaired children those who are not benefited from integrated units may be shifted to special schools. The resource of the special schools may be used according to the demand of the integrated schools.

Obviously it is a difficult task, but can be possible if it is properly planned, and prepared from the beginning.

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LOCOMOTOR DISABILITY

Locomotor Disability - Locomotor

Locomotion- ne-

or
Ability to move
place to place
independently.

Disability - (Noun) - Render legally incapacity, inability while discussing the disability condition we should consider two other words I plicement, dandicap as prefix and suffix.

Impairment - This word is amplied at that time when a part of body is not able to perform its function to its fullest extent.

Example - Burn hand.

Disability - Impairments leads to disability. This word is applied at that time where a part of body or organ is not able to perform the function for which it is meant in a normal way.

Handicap - If the disability is not checked by medical or other means, it leads to handicap.

LOCOMOTOR DISABILITY

It is a type of disability where movements of our body are affected due to disease, injury, any absence of part or deformities in the joints, bones and muscles or an injury of nerves, spinal cord or brain.

Locomotor disability arises due to

Congenital Cerebral Strate, Paraplegia, Amputation, deformities, palsy Polio.

How to identify Locomotor disability - a) ask the person to walk few steps.

- b) ask the person to lift the arim.
- c) as the person to pick-up any obj ct lying infront of him.
- d) ask the person to run a short distance.

Any person shows inablifity in performing one or more of these test can be consider as locomotar disable. In cases of Children these are not enough grown-up to catch-up the command in their cases motar skill check list help a lot for identification of locomotor disable.

For an example: - 1 Year child be able to do

- a) Reaches for object puts objects in the mouth.
- b) Pulls upto siting position holding adults finger and sit with support.
- c) Transfer an object from one hand to another.

But child is not doing above activities then first of all waits or some are days, if he/she still unable them you can consider the child as a locomotor disable.

Course-VII

/ i .

DISFUNCTION OF LI AS DUE TO POLIO

- a) P_0 lio is a crippling disease. In the year 1834 it became established as a clinical entity, it is caused by a virus.
- VIRUS: It is a submicroscopic pathogen consisting a core of single nucl isold surrounded by a protein coat having the ability to replicate only inside a living cell.

POLIO: Poliomyelitis, myelitis = Inflammation of spinalcor

Acute anterior polio welitis = Infantile paralysis Inflammation of the enterior horn cell due to some viruses, of spinal grap matter give rise to a flaccid type of paralysis no it is named as above.

Polio virus is a neurocropic virus, this means the virus has a special affinity to nerve tissue. It also attack the grey matter .f brain stem and motor cell of cerebral cortex. The vir.s is epidemic and sporadic by nature. The virus is water forme by nature and incubation period is 7 to 14 days.

Acute Stage	Signs & symptoms Convaluacent	Chronic
Pre-paralytic stage	Paral/tic	ويوسط و و ويسترين و
Acute symptoms	Fever	

Stage

Headache

Malaise

Diarrhoea

Pain in bock muscle

Pyrexia Lick (lip flexed to 90 Signs of rigidity Kernig and knee extended if Acute stage pain indicates meni_ sign (Politive) ngeal irritation)

> Movements of limbs very painful with increases muscle pain & tenderness

In acute stage fever comes first for 2 to 3 day, it subsides, reoccur and remain for 4 to 7 days. In second phase of fever muscl:) ralysis occur, may be one muscle, whole limbs or Motor paraplegia. 48 hours is maximum time of extent of par lysis. The paralysis is typical assymetrical lower a cor type of paralysis without sensory loss.

Treatment in acute stage. a) Good Nursing

- b) Symptomatic treatment for pain with sidation.
- c) Faralysis become worse if any injection, operation, massage or exercise gave in acute phase so every thing is contrainedicated.

Upper limb: Child lie on his b. ck

- 1. Lift arm over the head & bring it back
- Move the arm side- eys, retate the arm and bring to side of ted.
- 3. Keeping showlder fixed tell to the child to bebd the elbow, if muscle power is grade-3 then allow progressive resistive exercises using different dumb bells.
- 4. Rotation of arm and tell to the patient to make first and open it also.

CHRONIC STAGE: Most of carbaic polio require reconstructive sury-ry and then physical treatment.

PRLVENTION

Immunisation process is best without to prevent polio at the age of 2 month - O.P.V. ("rel Polio Vaccine) given first.

5 doses with one month interval is given. At the age of 18 months the boost 1 dose is given. If the child is having

- a) Mild fever
- b) Cough | C.P.V. should not be given at
- c) Diarrhoea time of these condition.

PARALYSIS

Paralysis: When we can not as a our limb completely to our desires.

Paraparasis: When we move our limb partly on desire. In both the cases full range of otion is concerned in paralysis R.O.M. is complicitly damage and in paraparasis R.O.M. partially damage.

Cause: Diseases of muscle, brain and spinal cord Trauma to muscle, brain and spinal cord.

Name of some paralysis condition:

Excluding Polio:

- a) Hemiplegia
- b) Paraplegia
- c) Quadriplegia

Hemiplegia: Involvement of one side of body

Example: Stroke '

Paraplegia: Involvement of both legs

Example Trauma to spine.

Quadriplegia: Involvement of 4 limbs

Diplegia: Involvement of 4 lim's with the leg more affected than arm.

Triplegia: Involvement of 3 limbs Monoplegia. One limb affected

JOINT PAINS OFHER C.USES

Basically we see pain in joints as a result of injuries (FRACTURE) Disease ('uberculosis of spine, Hip etc.)

SPRAINS:

Incorrect position of weight bearing (Flat foot) undue stress over joint also roduce pain in joint, it may be due to synovitis.

Synovitis: Inflammation of state also cause repeated injury of strains also cause synovitis. Arthritis also produce pain in toints. It is a Inflamatory condition of whole

Rheumatrid Arthritis

It is more common in case of women.

It is thought to be a toxic or a bacterial condition. A fully metabolism also produce Rheumatoid arthritis infact its mature of occurance is not fully understood tilt yet.

Osteo-arthritis

It is a disease of old age May be due to strains to which joints have been subjected in the course of life.

DYSFUNCTION OF LINES DUE TO AMPUTATION

A person who loses a part or whole of a body is called an amputee.

An amputation usually a unavoidable result of accident or disease. It is a treatment not a tragedy.

Indication for Amoutation Basid on Three 'D':

- 1. Dead or Dying
- a) Javere trauma
- b) Barns or frost bite
- 2. Dangerous
- a) Then some thing will produce malignancy.
- b) Crush injury.
- 3. Damn Nuisence
- a) C ndition worse than no limb or an, example:-Peripheral vascular disease like Burger disease.
- b) Cas yangrene

Implications of dysfunction caused by problems of movement of limbs or absence of limbs for education and teaching.

Disable persons a end two types, some are hypersensitive to their disability thinking that they are objects of had comment in the society some feel quilty themselve for their disability and become depress, that mean in och riverds these peoples mind is not well prepared to accept the condition as they are. For the former one that is hip assensitive quality can be

removed by removing spoken and unspoken comment of society by virtue of social workers. The second type of thought can be removed if one disable can be taken to group work, where he/she can se meet with others who have already undergone the same catastrophe.

Physical disability tonds to disrupt the equilibrium of once life and removes the individual from
normal social experience and from work situation, due to
two major factor; 1) Self-setisfaction, 2) Self-esteem.
Encouragement quality therapists, teachers help a let
to locomotor disable in learning self care activities
and other subjects also. Removing conditioned things
like steps infront of college, schools also help in
learning to locomotor disable.

Locomotor disable in illect and personality are some like normal man so after full filling Physical needs like shelter, food, opportunity for activity, rest and mental health such as Affection, security, sense of belonging of personal worth, encouragement to learn from experience, opportunity to achieve success in some field of endeavour they can be well educated and they can also teach others.

In case of a bilateral amputee if up right posture and locomotion can be maintained by means of any orthosis and prosthesis and physical, mental health is maintained then infinite variety of effective attitudes and activities will come out. The positive attitudes towards learning can be also establish if we envourage the disable working capacity, brought an awareness of Government cacilities such as concessions, scholarships etc. and follow-up disable

Some architectural modification to bring integration in the society as well as community. For example some ody is constructing a nouse. During the construction he should construct steps as well as ramps fairly levelled, just not to make any locomotor disable felt the frogotten physical loss. If the house is without ramp the locomotor disable way feel that he is not self-supporting and self-reliant of todays first moving society.

Orthopaedic handicape intellect and personality are same like normal man. .v ry handicape can learn everything by intellectual and emotional processes. Suppose a bilateral upper limb amputee can not gather the sense of crystal or amorphous quality by hand but he can know it by other means, that means by other part of body. As we know audiovisual factual system of learning is more effective in comparision to verbalizing learning process, so this can be applied to orthopaedic handicap, or amputee.

But as far as laboratory experiments are concerned the orthopaedic handicap may face some difficulties as because artificial limbs may not be able to give firm grip etc. so here experimental apparatus and work table requires some modification. The handicap may be provided with thick holder which will help to grip firmly with artificial limbs and a low work table may be allowed for the experiments etc. So with minimal modification many orthopaedic handicap con read in normal schools with science subjects also, and they will be not deprive of, they can be supplied with equal lesson plan as that we provide to normal students.

COUPSE - VII

Unit-3

PHYSICAL EDUCATION & JAILS FOR CHILDREN WITH LOCOMOTER DISABILITY

Physical education is simed to develop body and muscle power for healthy life. Physical education also help to develop tissues and other organs of body. Physical education and games provide proper circulation and help to acquire nutritive value. It also help to lungs and heart in functioning well.

Physical education and games helps in removal of waste product of body in the form of sweat and other elements. Physical education also help to the functioning power of kidney that which is responsible for the excretion of toxic waste.

Physical Education and Games

Produce corrective benefits such as:

- i) Mencal strain is removed and the body and mind become fresh.
- ii) Deformities of bodies caused by wron, ostures such as currature of spine are removed.

Physical Education and Games.

It also helps in development various mental faculties such as:

- i) Power of judgement
- ii) Power of tolerance
- iii) Power of detarmination

Moral benefits of Physical Education and Games.

It toaches us:

- i) Discipline
- ii) 3.lf-control and selfconfidence.
- iii) Nutual helpfullness
 - iv) Courage.

Everybody should think about following factor before all rang any game to locomotor disability.

GAME How .1_ yht(strong, light, heavy)

Time (Rhythm, Quick, Slow)
Flow (Continuous, roken)

What (ndy awareness)

Where (3 there of movements)

Capacity of playing depends upon

Brain and the spinal cord Motor nerves functioning ability Muscles and joint function.

Fatigue: - It is nothing but a sum of total of those factors that are r sponsible for diminishing the working capacity or physical efficiency.

Physical exercise may be in forms of games and physical drill, physical limications of the disable should always be kept in mind before suggesting any sorts of game or exercise.

for a paraplegics to maintain trunk and arm health locomotor disable can be allowed to play table tends with whosel-chair. The wheel chair must very heavily padded with rubber with the same whol-chair position a locomotor disable can play basket ball or not ball play as a out-door game. Archery is also on of the best activities for a paraplegic or locomotor disable. It provide to stimulus to develop the shoulder girdle muscle.

Throwing Javelin is also a good game for locomotor disable like paraplegies we'ch help to develop the upper limb muscles. Hammar throw, 'ing-ball play are best games

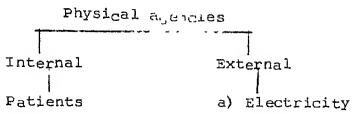
of out-door type for locom for disable. do can play with a wheel-chair very well. Chess, playing cards can be choised for indoor. Locomotor disable who are confind to wheel chair amon them if any school want to conduct any sorts of sports in y can select james like "Thread and needle race, Turnifwar, cricket ball throw etc. It is a prime duty that 's fore conducting any sports or allowing the locomotor disable to play any game his/her physical limitation should always kept in mind and lot of preventive measure should also be taken everytime.

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PHYSIOTHERAPY

A.G.Dhandpani Head (Physiotherapy Dept. HIRTAR, OLATPUR.

Definition: Treatment of patients utilising physical agencies in order to improve efficiency of muscle, joint mobility, co-ordination gait atc.



- a) Existing muscle power
- b) Water
- b) Existing joint mobility c) Sun rays etc.
- c) Sensation etc.

Methods of Physiotherapy: The methods used in physiotherapy to treat patients are a) Exercise therapy b) Electrotherapy, c) Hydrocherapy, d) Massage etc.

a) Exercise therapy: It is a method in which various techniques of exercises are given.

It can be active or passive exercises. Active exercise, are those exercises which patient himself can do ac-tively. Further it can be classified as follows:

- a) Free exercises Petient himself doing the exercises in a said pattern using his muscular effort without any external assistance or resistance except that of gravity.
- b) Assisted exercises: When the patients does the movement himself partially, an external forces is given to assist the working muscle.
- c) Resisted exercises: Externa force is given to the working muscle to improve the strength of the muscle.

Passive Movement: Then a patient con ld not do exercises or movements himself, an external force is applied to perform the movement.

Uses: Active exercises help to maintain or improve the muscle power, joint mobality, balance, and posture .

passive exercises help to maintain or improve joint mobility.

- b) Electrotherapy: In this mat od of physiotherapy, various electrical gadgets re-used.
 - (e.g.) Electrical stimulation to activate a
 muscle which losts its nerve supply, when
 a muscle can not work actively due to lack
 of nerve supply.

Heat treatments: Shortwave Diathermy, waxbath, etc, masse are given to improve circulation, to releive pain and obtain relaxation.

- k) Massage
- k) improve circulation
- 1) Physiothera hy 1) Patient's muscle powe
- 7) Say true or false
 - a) Physiotherapy is treatment using chemical agencies
 - b) Water is an internal wency used in physiotherapy
 - c) Existing or available joint mobility is an inter agency.
 - d) Exercise therapy is a muchod of treatment by electrical means .
 - e) Ac tive exercises are done by external force.
 - f) Free exercises are the exercises done by patient himself.
 - g) Arsisted exercises are liven to maintain the muscle power.
 - h) Assisted exercises or done using some external force to assist the working muscle.

- i) Rasited exercises are to improve muscle power.
- j) Heat treatments are (1 on to improve circulation.
- k) Electrical stimulation is given to a muscle which losts its nerve supply.
- 1) Massage is given to improve muscle power
- m) Massage is given to im rove circulation, relaxation etc.
- c) Hydrotherapy: Exercises a e given inside water tank or pool.
- d) Massage: Scientific moulding of various tissues of of the body in order to improve circulation to obtain relaxation, to relieve pain etc.

Model Questions:

- 1. Define physiotherapy
- 2. What are the physical aggreeies used in physiotherapy
- 3. List the methods used in physiotherapy.
- 4. Write short notes on exercise therapy.
- 5. What are the uses of electrotherapy
- 6. Match the following:
 - a) Inte nal agency
 - b) External agency
 - c) Hydrotherapy
 - d) Massaga
 - e) Free exercises
 - f) Assisted exercises
 - g) Resisted exercises
 - h) Passive movement
 - i) Electrical stimulation
 - j) Hydrotherapy

- a) Scientific moulding of tissues
- b) External force assisting movement.
- c) Water tank
- d) Electricity
- Exercise in Water
- f) External force producing movement.
- g) Patients' own musellar work.
- h) Denervated muscle
- i) Improve muscle strength
- j) Physical agencies.

Course-II

Unit-4.

Crutches and Jalking aids

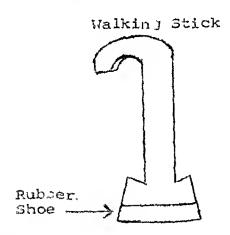
Walking aids fall into three categories.

- 1. Sticks
- 2. Crutches
- 3. Frames

The walking aids are used to give more stability while walking or standing, during weakness or paralysis of lower limbs.

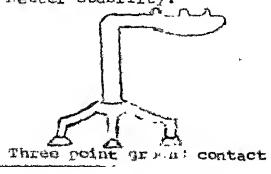
a) Sticks: Then the assistance to be given is at lowest level walking sticks are given

Types of Sticks: i) Ordinary Walking Stick.



While using single walking stick, it should always be given to the opposite side of the effected lower limbs i.e. if a patient has some problem in his Right leg, and the stick must be some to left side.

* ii) <u>Tripod stick</u>: This has 3 point ground contact for hetter stability.



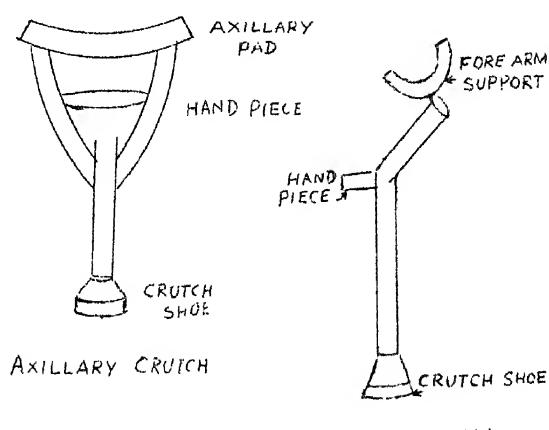
B) <u>Crutches</u>: Crutches are given for the patient who is an amputee (a person whose wort of the body has removed by surgical means) and those who are fitted with braces.

Types of Crutches: a) Axillary Crutches

) Elbow Crutches

a) Axillary Crutches: The person uses the axillary crutches rests the up or part (axillary pad) of the crutches under his axilla and walks.

While given crutches, clways give two crutches. Never give one crutch only. All the crutches must have crutch tip/crutch shoe.



ELBOW CRUTCH

Dr. Tar's Das

1. Principles of Curr rulum:

Learning experiences given/plant to be given to the learners. Courses of Studies of Frank to the context of Knowledge/information of a learners of studies. The carriedly is more than the courses of studies. The carriedly is more than the courses of studies. It includes the objectives of deaching in terms of expected outcomes of education, the methods of transaction of teaching-learning process, and the evaluation of learning. The evaluation should indicate whether the expected outcomes have been achieved. In planning Curriculum, the objectives, the content, the methods of teaching and evaluation - all nove to be specified in detail. Curriculum planning is based on certain principles; some of the important ones are:

- Relevance to environm nt
- Relevance to Child's need
- Relevance to subject discipline
- Flexibility.

We shall consider these principles in relation to planning the curriculum for the disabled children.

(1) Relevance to Environment:

The Curriculum should be relevant to the environment. This means that the Curr culum should enable the
child to deal effectively with his environment. The Child's
environment not only includes the natural and physical
environment, but also the social, political and
educational environment.

The natural and physical environment includes the plants and animals, as well as houses, vehicles, instruments and other objects used in the child's environment. The child should understand his role in relation to these aspects of his environment and durl effectively with them.

The social environment includes the home and members of the family, the school including its personnel, the community and its people. The child should understand his duties and responsibilities in relation to all members of his social environment. He should know what help he can expect from them and what help he can give to them.

The political environment includes the government and how it functions at different levels - local, state and fedeval. It includes the processes of election, administration and justice. The child should know his rights and privaleges as a citizen and how he can exercise them and at the same time his responsibilities towards the government. He should particularly know what provisions there are for the welfare of the disabled.

The educational environment includes the knowledge and its development in the world and how it affects our daily lives. It also includes the provisions for education and information, both formal and informal including the role of the press, the radio and TV.

(2) Relevance to Unild's needs:

The Curriculum should be relevant to the needs of the child. The needs of the child may be classified as physical, intellectual, emotional - social and vocational.

The Curriculum should take into account the physical growth and development of the child. For this purpose it should provide appropriate health education as well as physical education. While doing so it should consider the age and ability of the child. In case of the disabled child, the child an uld be given instructions to take care of its disability unils at the same time taking part in such physical activities which he can do with or without mechanical ai's/ampliances. While some activities can be common for the disabled and normal children, other activities/games can be organised for special groups of disabled children. Special physical and medical care should however provided to the disabled so that they can perform all activities without much difficulty. Architectural barri rs should be removed for movement of orthopedically handicapped. Glasses and hearing aids given to the partially sighted and hard of hearing.

Except mentally retarded children, other disabled children are intellectually as good as normal children. So their intellectual needs are some as those of normal children. They will have the some curiosity to know all about their environment and to find solutions to problems that they face. So the content of the curriculum for these children need not be different for the disabled from those for normal children. However some supplementary instructional materials may be prepared for each category of the disabled. In case of the educable mentally retarded, their intellectual level is same as those of children younger to them by 2 or 3 years; so they should be placed in a class with children

younger to them by 2 or 3 years. They should be taught more slowly, with more concrete pids, and with more repetition of same information. They should be continuously encouraged to learn and never scolded.

Every child has emotional needs. Every child, more so the disabled child, needs to be loved, needs company, needs praise and needs feeling of security. The curriculum and the school environment should provide for these emotional needs. The child's levelopment is hampered if it feels unloved and unwanted, considered inferior to others and feels threatened by his peers or teachers. The child has social needs. To the Curriculum should provide for group activities by children group activities in which children and adults take part. In case of disabled children, the school should specially arrange for their social activities. The school should also help parents in taking care of their life at home.

The children have also vacational needs. When they complete school education, they should have some vocational skills so that they would not be dependent on on others. Apart from intellectual skills of reading, writing, and arithmetic, the children should also be given some manipulative skills which they can do. If needed, the disabled child can be given more intensive training in some manipulative skill and vocationally employ.

(3) Relevance of subject discipling:

In planning curriculum, first the objectives of education are specified, both immediate objectives and long to m objectives are determined and these are so

chosen and stated that they in this readle measurable. They are usually stated in terms of knowledge and understanding, skills and abilities that the student should acquire and changes in his personality, attitudes, appreciations etc. that are to be effected. The content of the curriculum is chosen so as to achieve these objectives. The content is generally organised in the form of subjects of study such as Language, Mathematics, Social Studies, Science etc.

Since the Curriculum is "tweloped around some subjects of study, while dealing with each subject, it should be relevant to the subject discipline. Each subject of study has its own discipline which is expressed in its logical sequence, systematic method in its processes, its own rules and applications in daily life. In developing the curriculum, all these aspects of the subjects should be taken into consideration.

In teaching a subject, the logical sequence in which the constituent units of the subject should be developed should be noted. If this sequence is not followed, the subject loses its continuity and appears disjointed. The student will not see the relationships between the different parts of the subject unless they are dealt logically. Further if the logical sequence is not followed, those units, which are taught without teaching the earlier units on which they are based, will not be understood by the students, for example; if you teach multiplication before teaching addition, the student will not understand, for multiplication is logically based on addition.

A subject has its own sys ematte method. This mathod should be explained and Collowed. For example addition of numbers is done in a particular method, multiplication has its own method. In language an essay is written in one way, a letter to a friend in a different way. In the curriculum, all these methods should be learnt in relation to the subject.

A subject has its own rules. In language, the rules of grammer are to be learnt and followed. In Mathematics, various formulae have to be learnt and used in solving problems. Rules express the relationships between different concepts and ineas in the subject.

A subject has its own applications in life. In learning the subject the sturnt should learn how he can use what he has learnt in his daily life. Language he used in communication of his thoughts, mathematics in shopping, measuring and solving problems involving numbers, science he uses for healthy living as well as in leading a comfortable life, social studies helps in unlerstanding his role in society.

(4) Flexibility:

rlexibility of the curriculum means the degree to which the curriculum can be varied to suit to particular conditions. If everything in the curriculum is fixed and common to all pupils for all places over a period of years, the curriculum is not at all flexible. Flexibility in the curriculum gives the teacher the freedom to make variations in the content, method of teaching and evelopition procedure to make it more suitable to particular conditions.

A flexible curriculum gaves only brown gui'elines regarding objectives, content, m thed of teaching and evaluation. Within these guidelines, if gives much freedom to the teacher develop the details of the curriculum. Flexibility can be considered in relation to 'time', place, pupils and school facilities.

A flexible curriculum should differences among pupils. For this purpose often the curriculum is made of two parts—core curriculum common to all pupils and an obticual curriculum which the pupil chooses depending on his own interest.

To provide for flexibility over spice the N.P.E. prescribes a national curriculum consisting of a core curriculum which is common all over the country and another part which varies from place to place. In this way the curriculum can preserve the national unity and culture and at the same time, the local state culture can be given its due place in the curriculum. Flexibility should also allow differences in the physical and natural environment to be reflected in the curriculum.

Flexibility should not only allow for differences in interests of pupils but also for their abilities — both physical and mental. Although content may be same for visually auditory and orthopoldic disabled children as for normal children, the met also of teaching will vary. Also supplementary instructional materials which differ from one disability to another should be prepared and used. The mentally retarded has to be given a much lower level of curriculum. Evaluation should take into consideration the nature of disability. For visually disabled children, the curriculum should provide more

audio experiences using audiotapes and cassettes.

Also tactile experiences are given. For auditory

disabled (hearing impaired) children., more visual

experiences through models, pictures etc. should

be provided. While providing practical activities and

extra-curricular activities, the disability of the

children should be considered and such activities

as the children can do should be are assigned/provided

to them.

Flexibility should take into account differences in physical facilities of the school. A school can implement a curriculum for which it has necessary facilities. So the flexibility in curriculum should be provided so that the school can make adjustment of the Curriculum to suit its facilities. A curriculum should also change with time. Flexibility should be provided so that the curriculum is re-examined every year and desired changes are brought about to make the curriculum suitable to the changing conditions of the society/country. The curriculum should also present upto data knowledge about places, people and things mentioned in the curriculum.

Unit-2

Curriculum Adjustment and Adaptation to Special Needs.

The curriculum in the school is generally prepared keeping the normal child in view. The principle of flexibility of the curriculum should allow suitable modifications in the curriculum to suit to special needs. We have also seen that children with sight hearing or orthopedic disability have the

can be given the same level of curriculum. Children with learning disability can also follow the same curriculum provided remedial action is taken to overcome their learning disability. Educable mentally retarded children however are less advanced mentally and should be placed in a class two/three years lower than their age. However some curricular adaption have to it made to the curriculum for each of the kinds of callaren with disablement. The nature of adaptation depends on the nature and level of disability. The following principles should be considered for adapting the curriculum for the disabled studying in regular schools.

- the adaptation should not change the Original concept of the curriculum.
- Compensatory activities should be planned in such a way that the child gets a wholistic picture of the concept taught in regular classes.
- modification in the instructional material should not disturb the majority of normal children studying in IED classes.

A possible strategy of adjustments in the instructional material can be:

- outlining the proposed teaching and learning points,
- analysing the needs and type of adjustments at various levels.
- planning the adaptation in instructional material and methodology,
- preparation of supportive materials, and
- planning of group activities in the general classrooms.

Adjustment of instructional material and methodology can be made in the following ways:-

- (1) Without change in regul r teaching
- (2) With supportive aids, and
- (3) With resource teaching.

(1) Adjustment without change in regular teaching: Here the teacher only makes adjustments in the physical environment, such as:-

Hard of hearing children are asked to sit in the front benches,

Partially sighted are given large print materials and magnifying glasses,

Braille script is given to the blind child, Adjustable furniture provided for orthopaedically handicapped,

Correction of specific earning problems of learning disabled children is done through participation of normal children.

(2) Adjustment with supportive aids:

Here the teacher provides appropriate supportive aids to each kind of disabled children to teach the same concepts as taught to normal children.

Recorded tapes can be used to correct speech problems of hearing impaired. The sounds should be-recorded in minimum phonetic pairs. In addition the teacher can give visual materials to match the given sound. Thus the teacher can help the hard of hearing in learning the alphabet and the normal children in learning correct pronunciation.

The blind child can be given tactile material to match the sound.

The orthopaedically handicapped do not require supportive aids for learning the concepts taught to normal children. The child with upper limb impairment is given prosthetic aids and physiotherapy for

adaptation of limbs. Thick pencils or pens are provided for easy holding.

The educable mentally retaried is given additional workbooks for repetitive exercises.

(3) Adaptation with resource t_aching:

The teacher should illusify the learning difficulty of the disabled subject wise and suggested remedial exercises, but these exercises should be organized by the resource teach in outside the class, by a special arrangement of the time table within the normal school hours.

For example, if the hearing impaired is unable to learn speaking the sounds "Oh," "th," "dh" etc., the resource teacher can arrange corrective exercises to teach a particular sound. If a blink child is a poor braille reader due to faulty movements of the finger tips, the regular teacher should take the help of the resource teacher for correcting his problem.

Guidelines for adaptation in instructional material and methodology disability wise is given below:

Hearing Impaired:

Due to improper hearing in uts or lack of them, such children have more deficits in acquisition and retention of language. They have problems in learning correct articulation and in acquiring speech and language skills at the initial stages. But if they are given adequate training in speech correction, their speech and language acquisition and retention is like normal.

For teaching the hearing impaired in a regular class, the teacher needs to adapt the curriculum on the basis of the following points.

- More visual cues should be provided to compensate for auditory deficits. Triting the letter, showing how the correct sound of pronunciation is made, making the child touch the vocal chords while pronouncing, and practice is minimum phonetic pairs are some of the methods used for teaching correct pronunciation and spelling. Additional work book can be given to them for writing and learning spelling and pronunciation.
- The hearing impaired require a wholistic perception for understanding any concept. A list of all features and objects given in a particular lesson should be given to them carlier, so that they can see and observe the differences in the objects/concepts to be taught in IED class.
- Substitute the activity which does not provide same learning experience. If the child can not articulate a word correctly but knows its meaning and can use it in written sentence correctly do not emphasize on correct articulation.
- Wholistic method should be used to teach language skills.
- Language teaching should be related to child's experiences. New words and thrases should be taught by associating them with concrete objects and situations.
- Emotional concepts and difficult phrases should be taught using action oriented situation.
- Abstract concepts are taught using visual aids, role playing and dramalization.
- Short question answer method should be used for oral participation.
- Pooms should be taught for rhythm. Usage of similies confuses them.
- Supporting exercises are given for learning correct realing and writing.

Visually Impaired:

Visual impairment restrices a child's learning environment to auditory and other senses. For learning about size, colour, weight and which onal expressions, the blind may face more difficulty than the partially sighted. The teacher has to provie learning experiences in smaller units. For example, the scential attributes of a 'beautiful' flower' can be fir this child, the pleasant smell of the flower, the freshness of the flower and the thickness of the flower.

The guidelines in adapting the instructional material for visually impaired chilir in IED are:-

- More auditory and tactile aids should be given to compensate for visual deficits.
- More verbal cues should be orovided for explaining concepts.
- Three dimensional aids should be provided to children to provide a whole experience of the concept.
- The child should be allowed to manipulate the learning aids.
- Essential attributes of the concepts should be determined in the light of the child's limitation and taught one by one.
- Compensatory aids like care for mobility, braille slate and stylus for learning to read and write, abacus to learn numerical concepts and brailler for taking dictation in class should be provided.
- A multisensory approach should be used to provide complete learning experience to the child.
- The adaptation of the instructional material should be in terms of varbal instruction.
- The use of additional an' supportive material should not disturb other children in the class.

- The teacher should avoid the use of instructions like 'see', 'look' etc. which require the use of vision.
- The teacher should ask the resource teacher to prepare additional and supportive material in braille and large print before taking the lesson. Normal children can also help in preparing tactile aids in IED settings.

Mentally Patarded:

- Mentally retarded children require plenty of rest between instruction as they have short attention and memory spans. School time table should be adjusted so that periods of rest and play are provided in between.
- The learning activities should be organized through games, physical activities and music which form a permanent impression on their minds.
- The teachers should follow a strict development sequence for teaching basic skills. Sufficient practice should be given to them in learning the basic skills.
- Adaptation of instructi hal material and methodology should be in terms of developing cognitive abilities and muscular coordination.
- Activities requiring coordination of hand and eye movements.
- /ctivities which help in memory skills.
- Activities in developing sound discrimination.
- Activities which promote linguistic competencies, completing sentences, reading, writing skills, developing perceptual ability.

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- Encourage children to choose learning activity of their interest.
- Provide nucespary aids and supportive materials to learn the except adequately.
- Environment of the class should be conducive to allow development of their potential to the maximum degree.
- Help them in developing a cially accepted behaviours.

Orthopaedically handicapped.

These children require prosthetic aids and appliances and physiotherapy. They can be taught in the general classroom. They require adaptation in physical environment.

- Arrange seating in such a way that their movement does not linturb the class.
- Children with lower limb problems need crutches, wheel chairs, braces, hand rails etc.
- Children with upper limb problems need to have their books fixed on lap boards, require pageturner, thick pens, en holders for reading and writing purposes.
- As the child grows, the artificial limb or brace used need to changed. (They rarely fit for more than a year). Recommend help of a prosthesist.
- The height of furning used should be adjusted so that it loes not interfere with the function of prosthesis used.
- Postural habits should be observed so that children do not develop wrong postures.
- Children with health problem like athritis, cardiae diseases should not be given prolonged activities like writing.
- Normal children should be told not to tease the children or hide to ir prosthestic aids.
- Adapt physical exercises to provide proper muscular exercises.

Learning Disabled:

These children make some kind of mistakes repeatedly either in writing, reading or arithmatic.

- Give exercises to the child in identifying the letter or number, which he has difficulty in writing, speaking or recognizing.

- Give exercises which provide feed back of the same letter in difficult shapes, sizes and colours.
- Letters or words which resemble each other, either visually or auditorily should not be taught together.
- Sensory experience should be provided to copy letters correctly and verbalize differences.

 For example on, no: saw and was.
- Ensure that the child is continually busy and interested in the task during teaching session.
- F Give easier exercises first which the child can master.
- Learning tasks should be divided into small groups so that the child feels he has mastered the task.
- Give the child a paragraph in which he has to underline a particular letter or word as quickly as possible.
- Encourage the child to perceive the words as a whole rather than through identification of individual lett rs.
- For a child having difficulty in memorising time tables help him to memorise by explaining number relationship clearly.
- For improving reading and writing skills, give dictation of words of graded difficulty and exercises in single words, simple sentences and gaps in paragraphs to fill.

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INSTRUCTIONAL RESURCES

Dr.Tapati Dutta, R.C.D., Bhu angswar.

Instruction involves a number of factors like the teacher, the taught and the or a through which the instructional objectives are or 'e achieved. Therefore, effective transaction of the taxts are very important for successful teaching in the class. Hence the question arises should we have the some e tual materials for normal as well as handicapped children?

Textual Material f or all studints:

Instructional objectives and learning outcomes for both normal as well as has reapped children are similar in a classroom setting. Usually the text books are designed for the normal children. The text books as such can not be used by the handices ed children effectively. The textual materials used by one normal children are inadequate to achieve the instructional objectives by the handicapped children. They are also insufficient to bring learning outcomes of the undicapped children on par with normal children. As a result of this, the material of adaptations and adjustment/instructional Materials become inevitable in the educational process of handicapped children.

Textual materials for unique needs of children with special needs:

The learning experiences ordinarily planned for normal children may not be relevant and/or adequate for the children with special needs. They need different type of Tearning experiences according to their disabilities. Hence little modification of the content, method of display and response expectations are very essential for effective transaction of the cents. Here comes the

concept of Adjustment Instructional Material. The adjustment material refers to special approaches and presentation styles required for providing optimal learning experiences to the handicapped children in the regular claseroom. It is the process of making necessary changes such as modification alteration, substitution compensation etc., without changing instruct onal objectives and lcarning outcomes. The adaptation may be in terms of teaching mathodology, special approaches, teaching aids, presentation styles, evaluation, enriching ass gnments etc. Children learn through various sense experiences like by seeing, hearing, touching and smelling etc. The handicapped children are deprived by one or more of these sense organs which limits their sense experiences consequently their learning is affected. Hence, inditisensori approach has to be followed in order to come no te their limited sense experiences due to their disabilities, Adjustment of instructional material and metabology is planned according to the need of the caildren belonging to various categories of handicaps. However, the adjustment is planned in various ways.

A. Adjustment of Instructional material and Methodology without any change in regular classroom teaching.

Simple modification of Aysical environment of the classroom enable the handicappal chaldren to participate in classroom activities equally with normal children.

- Asking partially he ring child to sit on the fron bench, so that he can hear better.
- Froviding for a price of magnifying glasses to rely parcially signed.

- Eraille script and sl can be provided to the blind children.
- Adjustment furnitur s enables the orthophedically handicapped of the function normally.

B. Adjustment of Instructional in a rial for hearing impaired children.

They generally have misarticulation problem. They commit spelling mistak s as they write in the way they speak, e.g., 'tiger' for 'tiger'. The hearing impaired children require a wholistic perception for understanding concepts. Therefore precautions has to be taken while adapting the mic rials and methods while teaching hearing impaired children.

Guide-line for adaptation:

- -More of visual cues n .. to be provided to compensate hearing deficits.
- Mode's and charts has to be used more frequently for more clarity.
- For teaching emotional concepts, the teacher has to take the help of action oriented situations e.g., dramatize the expression of happiness and unhappiness, crying shouting etc.
- Hearing impaired chil. In have more problem in learning language. The phonology, semantics and structure of a language should not be taught in isolation. If there is a problem in learning a particular component of language, then remedial adapted lesson should be clanned e.g. use substitution table and structural approach.
- Role playing and drametization help the hearing impaired to understa d abstract concepts.
- Single word question and answer method should be followed for oral perfect extion of hearing impaired in IED class.

- The hearing impaired to wire supporting exercises for learning correct reading and writing skills, in the beginning.

C. Adjustment of Instructional Material and Methodology for Visually Impaired Children:

A lot of adjustment of instructional material and methodology is required in or to integrate the partially sighted and blind children. Partially sighted have to be provided with large print materials, magnifying glasses and adjustable furnitures. You vir. integration of completely blind needs learning the braille script and use of abacus.

Guidelines for adaptation:

- More of auditory and tectile aids should be used to compansate visual deficits.
- Three dimensional Life, embossed maps and charts should be used to concretise the abstract concepts.

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- More of verbal cues whole be provided while explaining concepts in the class.
- Compensatory aids like care for mobility braille slate and stylus for larning to read and write braille, abacus to lawn numerical concepts and brailler to cope up and speed of taking dictation in general classroom.
- The teacher should avoid the use of instructions like 'see' 'look' etc. which needs use of vision.
- The resource teacher should beasked to prepare additional and supportive material in braille and large print.

D. Adjustment of Instructional Haterial and Methodology for Mentally Position Children.

Integration of mentall: setarded children is more difficult than that of war millind and deaf children. Integration of Educatic Namelly Retarded

(EMR) is proposed only at the 'rimary level. Moreover these children go to the school unidentified as having any problem as the disability is not obvious and can not be observed directly. Hence they need more careful observation and alertness by the parents and the teachers while dealing with them.

Guide line for adaptation:

- Instructional material and methodology has to be adapted according to the development of cognitive abilities and muscular coordination.
- Adequate rest between the instructions has to be provided as the m ntally retarded children have very short attention span school time table should be flexible enough to adjut the periods of rest and play alongwith the instructions.
- The learning activities should be organized through games, physical activities, music which help to form permanent, impression on the minds.
- The teacher should follow a strict developmental sequence and task analysis for teaching basic skills.
- Sufficient drill and proc tice should be given to them because they need over learning for proper retention and implimentation of the skills they learn.
- Activities requiring coordination of eye and hand movement, has to be included.
- Activities which help attention and memory skills, should provided.
- Activities which improves linguistic competencies like, readingl writing, comprehension, have some place.
- Encourage children to choose learning activities of their own interest.

- Provide necessary aids and supportive materials to concretize the concepts.
- Help them to develop socially accepted behaviours.

E. Adjustment of Instructional Material and Methodology for Orthopaedically Handicapped Children:

These children can becaught in regular classroom as they are mentally just like normal children. They require some prosthetic aids and appliances and physiotherapy in order to compensate their disabilities. They do not require any adjustment of textual material or methodology rather some adaption of physical environment is essential.

- Scating arrangement should be such that their movement will not disturb the class.
- Children with lower limb problems, need crutches, wheel chairs, braces, hand rails etc.
- Children with upper limb problems need to have their books fixed on lap boards, required pageturner, thick pens, pen holders for reading and writing purposes.
- As the child grows, the artificial limb or be brace used need to, changed. (They rarely fit for more than a year). Recommend help of a prothesist.
- The height of furniture used should be adjusted so that children do not develop wrong postures.
- Children with health roblem like arthritis cardiae diseases should not be given prolonged activities like writing.
- Normal children should be told not to tease the children or hide their prosthetic aids.
- Adapt physical exercises to provide proper muscular exercises.

Learning Disabled:

These children make some kind of mistakes repeatedly either in writing, reading or arithmatic.

- Give exercises to the child in identifying the letter or number, which he has difficulty in writing, speaking or r cognizing.
- Give exercises which provide feedback of the same letter in diff rint shapes, sizes and colours.
- Letters or words which resemble each other, either visually or auditorily should not be taught together.
- Sensory experience should be provided to copy letters correctly and verbalize differences. For example on, no; saw and was.
- Ensure that the child is continually busy and interested in the task during teaching session.
- Give easier exercises first which the child can master.
- Learning tasks should be divided into small groups so that the child feels he has mastered the task.
- Give the child a paragraph in which he has to underline a particular letter or word as quickly as possible.
- Encourage the child to perceive the word as a whole rather than through identification of individual letters.
- for a child having difficulty in memorising times a tables, help him to memorise by explaining number relationship clearly.
- for improving reading and writing skills, give dictation of words of graded difficulty and exercises in single words, simple sentences and gaps in paragraphs to fill.

DISABILITY-WISE INVENTORY OF EQUIL NI AND MATERIAL

Disability	Individual	Ails and equipment	Sharing amongst	Instructional Material
orthopiedic	Adjustable furniture, special writing arterial, thick pen	Adjustable furniture provisson for development of improvision prosthetics.	r.	
Visually impuired blind		Brailler, Abacus, Taylor frame cassettes and Talking books, Maps, Embossed recreational materials.	Braille sheets, thermoform machine, Maintenance services for Brailler, embossed recreational materials.	<pre>Braille text books, material on casse- ttes and talking book.</pre>
Fartially- signted and low livision children.	Special adaptive equipment like hand requifiers to be used with spectacles portable reading	Specially designed dasks with adjustable magnifiers, white boards instead of black boards, aids for enlarged projection.	wich,Special arrangements for producing large print materials.	Large print materials.
imparing Impaired	lamps. Individual heariny aids.	Voice trainer, large mirror size 3'x6' for speech therapy, visual illustrations.	Audiometer, Voice trainer, maintenance facilities for hearing aids.	Special learning materials like flash cards, charts, educational games, handouts of
		Mirrors 10'X6' in e.ch classroom. Group hearing aids and cells for hearing		classroom activites.
Mentally Reterded		alds. Sensory apparatus kits pre- Sensory on the lines of Maria Montessori or kits produced by NCERT for early childhood Education Programme.	λ.	Meterial written on a lower reading level than average.

Exa pler-IV Teaching writing skill to Children with Upper limb Impairment Children in IID Settings.

Adaptation	required opaedicelly so that h and B
Students' Behaviour	Stufunts will look at the cords and observe the letters b.
	The teacher provides cards with the letter be written in many colours aaying "this is the letter b".
Teacher's Behaviour	reaching towrite letters. For the orthopaedically handecapped child it is better to teach writing of letters with similar shape (Example of pand bhas been taken).

The teacher provides another 'Students observe card with the letter P written the card.

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cn it.

Instructional Resources from the resource room:

Resource Teaching is a pre-requisite of Integrated Education. Resource teaching bridges the gap between handicap and normal children. There are three basic requirements for effective resource teaching.

- i. Congenial environment positive attitude of parents, siblings, teachers and peers.
- ii. Adequately prepared instructional materials for the child as well as for regular teachers.
- iii. The child has to be properly motivated in order to be attentive and cooperative in the resource room teaching.

Aids and equipments for Visually Impaired:

Braille Duplication and Braille Writers.

Writing Aids.

Braille Paper

Talking Books and Tage Recorders.

Mobility

Low Vision Aids

Other Optical Aids

Equcational Aids/Mathematical

Educational Aids/Geography

Teaching Aids

Intelligence Tests

Vocational Aids

Measurement

Clocks and Watches

Games and Puzzles

Sports

Kitchen Equipment

Personal D vices.

Aids and Equipments for Huntelly Retarded:

1. Pegs

Aim: To teach general or news (number skill through play-way metaod).

2. Dominous
Aim: To teach colour context

3. Sensorial Appratus
Aim: To teach size concept.

4. Matching Cards.

Aim : To teach how to match various types of figures.

5. Recreational Toys
Aim: To teach motor ability.

6. Geometrical Shapes
Aims: To teach share concept

7. Mathematical Signs
Aim: To teach number skills.

8. Model Clock

Aim: To teach time concent

9. Alphabets/Digits.

Aim: To teach the child ore-reading.

Sand, water, colour, clay for perceptual motor training.

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LEARNING AND FLAC I.I.G

Dr. T.Dutta, R.C. E., Bhubaneswar

Role-of Teacher:

Teaching is a very com l x task. Dffective teaching depends upon the shill and competency of the teacher. An effective teacher was to keep a number of things in his mind.

A. Pupils are the pivot in seaching learning process. The success of teaching depends upon how the teacher is able to cater to the special nucls of each and every child involved in the process. In order to understand the child the teacher should have the knowledge about their strengths and weaknesses in terms of their interests, aptitudes, mental abilities, their personal experiences and problems. The teacher has to depend on various testing and non testing techniques to collect the above information about the child. They the as follows:

Most commonly used Non testing techniques are: Observation

Int prview

Check-list

Rating Scales

Cumulative Record Card

Sociometric Technique

The teacher can also collect the information about the child's potentialiti of from the psychologists and counsellors where ever the facilities are available. The psychologists and counsellers give various psychological test to assess the intelligence, aptitude interest and personality of a child. On the basis of the knowledge of the strengths and weaknesses of the

child the teacher should organises his teaching plan and strategies. Honce the teacher has to take extra care to understand the special needs of the handicapped children before preparing any educational programme for them.

After understanding the special needs of the в. handicapped children, the teachir has to plan the learning activities in such a way, the students must feel that they are meaningful and nucessary for them. In order to make the tasks meaningful, the teacher has to adopt and modity the tasks according to the need, interest and ability of the child. For example, modification and organization of physical arr includes of the classroom may be very essential for ort topaedically handicaphed children. The teacher should be v ry flexible in choosing mutho's and materials which nuls adjustment according to the disability. For example, Blind child has to be provided with braille slate anl/or other special teaching aids in order to take part in the regular classroom. Similarly the teacher should keep a lot of scope for drill and practice in order to integrate a mentally retarded child in the regular classroom.

Sometimes the teacher has to involve the parents in the teaching process so that they can carry on the practice programme at home. Time Table has to be such that adequate the rest may in rvine in between two periods. This is very very essential for mentally retarded children. The teacher should also make provision for poor teaching and mairing to solve the problems of learning especially for mentally retarded children. Organisation, adjustent and adaption of

matorial and methodology buc ... s easier on the part of the teacher, if he answers . .. following questions:

Whom to teach - Fupil - Inach category he belong to:

That to teach - Purpose, or instructional objectives.

How to teach - Supportive makerials and methodology according a fine special need.

Hence conditions for survissful teaching includes the following:

I. The teaching purpose was to be specified and speltout in terms of instructional objectives. The teacher must be clear both about general and specific objectives of teaching. For example:-

General Objectives of to ching language supposed listening to be developing four skills like-reading, writing, speaking correctly and underst adding meaningfully. Specific objective will vary according to the topic. While teaching prose the teac. r develops the skill of comprehension, correct use of some words and phrases etc.

- II. Understanding pupils is the second important factor for successful teaching.
 - a. Pupil's interests, emitudes, mental ability and personality.
 - b. Pupil's functional 1 vol and their knowledge.
 - c. Pupil's strengths and weaknesses.
- III. Vatiety of Choice of Mar rial and activities.

The teacher should use corefully a variety of activities and teaching aids according to the need and interest of the students. Direct nt supportive teaching aids should be used for direct teaching of handi-capped children e.g., brail to abacus for blind.

Colourful Cards, charts and solls for mentally retarded.

- IV. Flexible use of resources.
- a. <u>Preedom</u>: There should be enough scope and freedom for students to participate actively in the classroom activities. The teacher should encourage and invite the students to take part in classroom discussions and other activities.
- b. Time: Duration of period and School should vary according to the need of the child. e.g., For mentally handicapped the duration of school and period has to be very short as they have very short attention span. Enough rest should intervine in between the periods.
- c. Pair Teaching may by utilized to help the teacher. Peer may be selected as a leader of a small group and teach. Sometimes pairing or a normal good student is given the responsibility of teaching and clarifying the doubts of the hendicapped peer.
- d. Parents involvement in teaching hand capped children is a must. This reduces he work load of the teacher. Parents can carry on rectice at home. They are more sincere in carrying out a programme than any body else. More over child's progress give a lot of moral atrength and support to the perints.

V. Reflection and seview:

At the end of teaching the teacher should reflect, revise and review each and every teaching point. This revision helps the reacher to evaluate the efficacy of both teaching and learning process in the classroom. While teaching the handicapped children this reflection, revision and valuation should take place after each teaching point. So the continuous revision and evaluation is very assential in teaching the handicapped children.

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Conditions of Effective Teaching:

The effective teachin (al., ands upon a number of conditions. The first and the most important condition is that the teacher has to a tablish rapport or a good, friendly cordial relations in , ich the students, so that the children accept him and it lop confidence on him.

The next condition is 'm rying the pupils in terms of knowledge, skills, interest and previous experience. The teacher working with the children with special needs has to

- (1) Identify the spicial needs or locate what kind of problems in child has, e.g. whether the child has hearing problems or visual problems or intellectual problems. The children has to be categorised accordingly.
- (2) Assessment of the functional level in different areas like, physical, motor, intellectual, social and emotional.
- (3) The teacher shoul also find out the child's previous knowledge and experiences in various academic and non-academic areas for placement and educational planning.
- (4) Simultaneously the teacher has to find out strengths and weaknesses for preparing Individualised Educational Programmes (IEPs) and utilize strengths in special abilities to facilitate teaching classroom and outslde.

- (5) The teacher should salect appropriate equipments and provide teaching aids according to the special needs of the children, e.g., prepare visual and tactile aids for Hearing impaired.
- (6) The teacher should don't adequate methods like activity method or multisensory approach to facilitate learning of the disabled children in the regular classroom.
- (7) The teacher should try to relate the classroom teaching to the personal experiences of various disabled children to make the learning in the classroom more meaningful.
- (8) The teacher should invide all types of support and remudi I services to bring the handicapped children upto the level of their peers.
- (9) Besides the teacher should create congenial classroom climate for the disabled children. There should be recorded postive attitudes among both handies, and and non handicapped children for having good personal-social adjustment, frequent in eractions and efforts to help each other.
- (10) Tasks and ac tivities should be arranged in such a manner that such handicapped and non-handicapped and child, in are equally interested and get squal on out with a to perform them.

- (11) The teacher should encourage and initiate the activities, so a both normal and handicapped pupil on take part equally, in those activities.
- (12) The teacher should involve both parents and pears in teaching . A idap ad children because they need lots of drill and practices for learning.
- (13) The teacher has to havery flexible in selecting various methods which should vary according to the subjects, levels and the special needs of the children.
- (14) The teacher has to no innovative in preparing teaching aids according to the special needs of the children.

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CLASSROOM AND BEHAVIOUR PRILIBILITY

Dr.(Miss) Tapati Dutta, Sr.Lecturer, RCE, Bhubaneswar.

The mentally retarded conducted show behaviours of various problems which may ... categorised as:

- a) Emotional Problems.
- b) Mannerisms.
- c) Attention problems.

In order to deal with these behaviours functional analysis is very essential. First identification of cause/reason of the problem behaviour and then utilization of appropriate treatment. This is 'nown as behaviour management or behaviour therapy.

a. Emotional Problems:-

Inferiority complex: The child feels that he/she is incapable of doing task or ans aring in the class which the normal children can easily Jo and often the teacher compare them infront of the whole class - results in inferiority complex.

Treatment: The teacher should simplify the task, if necessary prompt or ask probing questions which help to elicit the correct answer. When the child is able to give right answers with the help of he teacher, he gains self confidence which results in politive self concept and reduces inferiority complex. Paus the success experience is very essential for motivating the mentally retarded child and to enhance his self confidence and inculcate positive self concept.

II. Stress and Anxiety:

Inferiority complex and neglect by the teachers and peers leads to stress and anxi by on the part of the

Freatment: Acceptance, help and rapport by the teacher and avoidance of comparison in the class reduces the anxiety and stress of those children.

III. Anger and Tempertantrum:

If the teacher neglect and humilate the mentally retarded child in the classroom the child looses interest in studies, start hating the soudies, teacher and peers. Many a times they become aggressive and inattentive in the class. Those children frequently utilise the aggressive behaviour and temperantrum in order to draw attention of the teacher and the peers.

behaviour and tempertantrum sometimes or reinforce the reverse behaviour i.e. reinforce the child when he does not show aggression or tempertantrum.

IV. Frustrations:

In ability to complete the task successfully leads to frustration. Frustration rule les in stress and unxiety.

Treatment: However to leacher can help the child to get rid of frustration by Leviding success experience in the class, helping them in setting realistic goal.

b. Nanarisms:

Mentally etarded Chillien are after victims of various kinds of manarisms or odd behaviour, such as, pulling hair, producing monologies sound, repeated steriotype behaviour.

Preatment: "he teacher by have to utilize negative reinforcement or positive diafercement technique according to the child.

c. Attention Problems:

Mentally r tarded child in su for from short attention span. Phis result is instruction, lack of concentration and poor retent in "horefore in order to improve the memory of the Nicolal, enhancement of concentration and improvement is at ention is very essential.

Physical arrangement. These c. laken as to be taught in a calm and quite place which is free from distractors.

The walls should be clean, and free from distractions, sounds. If necessary such chillr n should be taught individually separated from the first of the children. The matters has to be present a with the help of colourful aids which may attract and spec in their attention. They should follow distributed pricince in place of mass practice for better retention.

Regarding P_{r} oblem beh virurs like pulling hair, tempertantrum:

Date	Time	Prequency pulling har Temportant			Freque- ncy in 60 nts.
1	2		on the America programme and the contract of t	4	5
15.4.90	10.30 to 11.30 A.M		10 times	Reinforce when do not slow temper+ tantrum	

ROLE OF REGULAR AND RISTURGE TEACHERS IN INTEGRATED EDUCATION OF CHILDREN WITH SPECIAL EDUCATIONAL NEEDS

Dr.S.C.Chaturvedi, Retd. Professor, R.C.E., Bhubaneswar.

Equation is the most towerful agency by which a person's individuality is diveloped. All those who have been concerned with the education system are fully aware that the schools should be carreble of fulfilling the potential of all those who pass through it including children with special educational needs. There was a time when people believed that children with special educational needs could only be educated in special schools especially meant for them. Gradually, a new thinking has emerged, leading to the recognition that ordinary schools can and should accept children with special needs.

The scheme of Integration would be successful if the teachers and parents work as equal partners to the fullest extent. It involves promer procedures for advising parents and organizing 'Aan-icap Awareness sessions'.

Teachers can hardly be expected to take on this responsibility in addition to their placer commitments. In our country particularly in the rural areas they are the only professionals to undertake this job. So, the task will fall on to them by default.

Many teachers will have their own preconceived nation about children with rectal educational needs and will respond to their needs in various ways. The way the teacher perceives the new situation is important because this will have consequences for both the child's education and self conceptions.

A useful way of conceptualizing the level of acceptance is to use the term, "positive discrimination continum" and the amount of extra and special help the teacher is prepared to give to the child with special educational needs (SEN). At one end of the continum the teacher has no objection in accepting a disabled child in the regular classroom but is not prepared to offer more than what she/he perceives as a "normal" amount of attention. In other words they welcome the SEN child but on a "sink or swim" basis. The next point in the continuum gives us the teacher who is willing to accept the SEN child and s/he is also prepared to offer extra help. But s/he cends to classify them all together as those in need of extra help. This teacher may modify her/his teaching style for the benefit of the SEN child but in a very limited sense.

A further point in the continuum will give us the teacher who takes very seriously the responsibilities of an SEN child and is prepared to make carefully thought of modifications in her/his teaching in order to meet the special educational needs of the child. S/he prepares her/his lessons in such a manner that the SEN child marches ahead along with other children of the class. S/he also ensures that the interest of the other pupils of the class is not sacrificed.

The other end of the continuum is represented by the teacher who makes rather a "big production" of the presence of an SEN child is the classroom. In his zeal to do his/her best for such a child s/he makes concessions to the SEN child at the expense of other

The findings of the researches indicate that teachers can be made aware of these needs through inservice training programmes. These programmes can be organized to discuss methods and techniques for working with SEN children and other allied matters. The teachers must clearly understand their role in an integrated setting as they have to deal with mixed ability groups.

The effect of the Education of the Disabled in the main stream can be broadly divided into two major factors:

- 1) Firstly the children with special needs who can profit by attending classes with normal children should be rightly placed in ordinary schools.
- 2) Secondly the teac of s should be skilled in recognising the pupils for whom adequate arrangements cannot be made in the ordinary schools.

The teachers of the ordin ry schools therefore, must be prepared to face the new challenges. They can effectively play their role if they keep note of the following points before and during the IED(Integrated Education of the Disabled) programme.

The teachers must:

- have a clear conc_pt of special educational needs.
- 2) be determined to .et as 'responsible persons' to ensure that the achool fulfils its duties to identify and ar vide for those with special needs.
- 3) take active part in the identification of the children with special educational needs.

- 4) keep the parents informed of any problems their children have as well as the proposed action.
- 5) know the various external agencies in the locality available as support services.
- 6) keep all the records properly so that the action programme is properly executed.
- 7) be willing to introduce the system of mixed ability teaching. (more personalized teaching and learning)
- 8) workout a remedial teaching programme which may help all pupils cspecially the children with special educational needs.
- 9) try to know about the work of those who have the child before and after them.
- 10) prepare a plan to prient the normal children by providing informations regarding the children with special educational needs.
- 11) must attend in-service courses/seminars/workshop organized from time to time.
- 12) try to ensure that these children are integrated in the real sense of the term. These children should be assigned responsibilities they are capable of shouldering alongwith other children of the classroom. They should be encouraged to take active part in all the activities and programmes of the class as well as of the school.
- 13) be willing to cooperate with the Resource teachers for providing the best possible education to these children.
- 14) develop instructional materials to teach mixed ability groups.
- 15) monitor the level of the Group's acceptance of the child and integration into the various activities curr callr as well as co-curricular.

3

In brief, it may be stated that sound principles of teaching apply to all students normal as well as disabled. Teachers have to shoulder a number of responsiblities and are required to play a number of roles.

The effective teacher in an Integrated setting is 1) One who involves the parants and all other members of the staff of the school as well as the people of the community who are able and willing to do their best for the education of the SEN Children, 2) always prepared to make use of a variety of methods, materials and media in her/his teaching, 3) a good transmitter of information, 4) a good receiver of information, 5) a conscienceus evaluator.6) a facilitator of learning who is willing to support other teachers including the resource teachers. S/he is always ealer to crowide all necessary help to students for having access to the learning materials.

The Resource Teacher:

It is necessary to discuss who is a resource teacher before a list of her/his responsibilities is prepared. A resource teacher is a teacher who has been specifically trained to assess, teach, and evaluate the performance of the children identified as being in need of special educational services. The resource teacher is also expected towork closely with the child's regular class teacher and his/her parents in order to provide the child with a consistent and integrated programme.

The resource teacher works in the resource from but mostly s/he has to work out of a resource room.

What is a resource room ?

In the context of special education, any setting in the school to which as except onal child may come to receive specific help (academic, behavioural, motoric, etc.) on a regular basis for specific periods of time. For the remainder of the school day, the child receives his educational programming in the regular classroom.

The flexible deployment of resource teachers is of utmost importance. The more flexibly those teachers can operate the gre ter likelihood of meeting the special needs of the children. Depending on the situation, a sesource teacher may have to provide such attention within the regular classroom.

Role of the Resource Teachers:

- 1) The Resource Teachers (RT) are to assist the school authorities inthe identification and placement of children.
- 2) S/he has to organize inservice orientation programmes for the administrators and teachers of ordinary schools. Tteachers in ordinary school should be provided with basic information regarding the comment of "Special need", individual differences or the possible educational consequences of different physical or sensory conditions.
- 3) S/he is to provide expert advise to the class teachers regarding the possible approaches to teaching the children, with smedial needs.
- 4) S/he has to develop or provide assistance in developing instructional materials to supplement the next

- 5) S/he has to provide regular classroom teachers with the following information:
 - i) functional level of che child
 - ii) emotional, physical, intellectual and social factors of the child with special needs.
- 6) S/he has the responsibility of advising the classroom teachers about the n-w materials and new trends. The materials which can be adapted for the classwork should be shared by them. It had be the use may be explained.
- 7) S/he should be willing to provide individual supportive help in the regul:r classroom to the students with special needs.
- 8) S/he should take ac tive interest in planning sessions,
- 9) S/he must Orient the students of the ordinary schools by providing appropriate information regarding children with with special educational needs.
- 10) S/he has to explain specialized equipment or apparatus required by integrated students.
- 11) S/he is also expected to work closely with the child's regular class teacher and his/her parents in order to provide the child with a consistent and integrated programme. S/he has to work as a specialist whose major responsibility would be to provide regular class teachers, parents, administrators, etc. with assistance or consultation regarding specific children with special educational needs and their educational programmes.

12) S/he must involve h mself/herself in total school activities, for example by serving on various school committes.

The crucial question about integration is how the ordinary school teachers, the special school teachers and the resource teachers can be employed under the integration scheme. The success of the scheme depends on the dedication of all these teachers.

APPENDIX- I (1)

THE BLIND BOYS' ACADEMY, NARENDRAPUR, WEST BENGAL

Started in 1957, the Academy is an important link in the chain of educational institutions run by the Ramakrishna Missi in Ashrama of Narendrapur. It is engaged in carrying out a comprehensive plan for the education and training of blind boys so that some at least of India's about 9 million blind people may have the satisfaction of seeing fulfilled what is the chief aspiration of every normal human being.

To make this possible the Academy tries to:

- (1) Educate those among the blind boys who appear to be intellectually sharp;
- (2) Teach advanced music to the really talented among them;
- (3) Train them to work as drill and press operators, capstan operators turners and other skilled craftsmen; and
- (4) Teach scientific farming, specially poultrykeeping, dairy science, kitchen gardening, horticulture, floriculture, etc., to those who have a farming background or come from poor families of rural areas.

A beginning has already been made towards the implementation of the plan outlined above and the results so far achieved, if looked at from the point of view of REHABILITATION, are encouraging as may be seen from the table given below:

Profession		lind men
	emo	loyed
School & College		30
Teachers		18
Music Teacher Industrial Worker	1	73
Workers inthe Sub-Contract Workshop	;	26
Agricultural workers resettl in their home		64
Miscellaneous	de la companya de la	23
T	otal: 4:	34

1 1 **

Demonstration Van:

A new project under the placement department of Academy has been introduced in 1976. It is a mobile exhibition which is installed in a demonstration van with an inside floor area of 12' x 6' and 5.5' height. The van is equipped with power driven mini lathe, grinding and drill machine and one hand-driven rubber band cutting machine. The students of our industrial Training (centre work on these machines in front of spectators to give them a practical idea about the blind person's capabilities. The demonstration van is often taken to the prospective employers to demonstrate what the blind, if they are properly trained, can do on power-driven machines. It is also sent to different fairs and gatherings in and around Calcutta to enlighten the public about the potentialities of the "light denied".

Agricultural Training:

It is a fact, the majority of blind population in India come from rural areas. It is, therefore, desirable that they should be trained in rural vocations, particularly in agriculture and animal husbandry.

For the last twelve years we have been running this project in an attempt to train blind youngmen in scientific farming.

Although it was an experimental project initially, the results so far achieved, bear the testimony that the project has been a successful venture and all the 115 of the 115 trainers have already been resettled in their professions like, Poultry, Goat and cow keeping.

Market-gardening, Cultivation of Paddy and Wheat etc.

As a consequence this has opened vast possibilities

for the rural blind. Now what we need is that a considerable amount of farming land be procured and more facilities be provided to rural blind persons so that the

Academy may absorb larger number of rural blind persons,

which it cannot do with its present land and residential

provision. Land is also required for arranging co-operative
farming of those trained blind who have no land at all.

Drive is also required for procuring and distributing

land to those landless blind who want to be settled in

their own individual-home setting.

Swimming Pool:

Swimming is one of the best physical exercises that we can have at a cheaper cost and which can offer specially to the blind a better scope for their physical activities which they otherwise can have hardly any opportunity to do. It also develops in blind children self confidence which is very much essential for them to possess for their alround development. For years together we were pining for starting such a project, and at long last the swimming pool project was commissioned in 1978 in an artificial pool with inlet and outlet facilities of water. It has created a newjubilation in the heart of blind youngsters. When situation permits competition in aquatics will be organised here, in this artificial pool.

Teachers' Training:

Teaching the blind (or for that matter anybody who is physically handicapped) is a specialised job and the fact that there are practically a few teachers in the country who are specifically trained to teach the blind has proved a great hurdle to the work of educating the blind. The Academy started training such teachers on a regional basis in 1965 and since then trainees representing different schools and organisations for the blind in the Eastern Region and also of South India have been trained.

Braille Press and Braille Library:

The Academy started a Regional Braille Press in 1967 here at Narendrapur, which is producing Braille books to meet the needs of blind students living inthe Eastern Region of India i.e., Assam, Orissa, West Bengal, Tripura, Manipur, etc. Up to 1986 the Press has completed brailling of books for classes I to VIII and most of the text books for classes IX & X including annual calendars and also a few books of the higher secondary standard.

The languages covered by the Press are Bengali, English, Sanskrit, Assamese, Oriya and Manipuri.

Talking Book Studio:

A well equipped talking book studio has started functioning in 1976 in the new site of the Academy to facilitate recording of reading materials as also listening to the sound-scribed books for a single individual or whole class at a time. This studio shall also work as a language laboratory to help offer speech

therapy for the blind children having speech defect.

It is being contemplated that the services of the studio and its talking books be extended to entire eastern region in future.

Restoration of Physique and Assessment of Abilities:

It often so happens that while a boy is known to be blind, there is really no such damage yet to his eyes that it is not possible, with a little care and treatment, to restore his sight; indeed, many instances are known in which one or two surgical operations and some medical and dietary care have given back a near normal vision. Also it has been observed that often a blind child suffers not only from blindness, but also from other ailments some of them having their roots in other organs. It is, therefore, necessary that there be a well-equipped clinic attached to the Academy which will be charged with the task of thoroughly examining a blind person first to see if it is possible to restore his sight and then, to see if there is any other organ in his body which is damaged like the eye and not functioning normally. Unless such a thorough test is undertaen no reliable assessment of his abilities can be possible and any decision that is made regarding his course of training based on wrong or insufficient data is likely to lead to frustration, if not, what is worse, also to further damage to his body.

Spice Grinding:

Since May 1986, the Blind Boys' Academy have started a new venture-spice powder and napthalene ball making units for self-employment of those visually

handicapped post trainces, who are waiting for employment.

Now-a-days procurement of direct/open employment for the blind has become a difficult proposition for the acute problem of unemployment. To find other channels, the present self-employment venture has been started.

Presently 8 (eight) blind workers have been engaged in training for a period of 1(one) year, to learn making spice powder and naphthalene ball, operating heat sealing machines, drying, packing etc. as also to sale the products, to create market for the future self-employment.

On completion of their training the trainees-cumworkers would be encouraged to start a small business
either individually or in a group of 4/5 ex-trainees.
Nationalised Banks have assured the financial assistance
for these enterprenders.

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APPENDIX-II

NATIONAL INSTITUTE FOR THE OUT CHAEDICALLY HANDICAPPED

THE INSTITUTE

National Institute for the Orthopaedically
Handicapped was established in a spacious campus, at the northern outskirt of Calcutta on J.T.Road, Bon-Hooghly,
Calcutta-90, in 1978. It is an enconomous society under
Ministry of Welfare, Govt. of I ia.

OBJECTI VES

- a) To develop manpower for providing services to to the orthopaedically handically appulation.
- b) To conduct and sponsor research in all aspects relating to the rehabilitation of the orthopaedically handicapped.
- c) To standardise aids and appliances and to promote their manufacture and ois ribution.
- d) To develop model scrvices inthe area of restorative surjery, aids & appliances, and vocational training.
- e) To serve as the apex Documentation and information centre.
- f) To provide consultant services to the State Governments and Voluntary Centers.

SERVICES

For the purpose of realising the objectives in the field of treatment, training and research, the institute has developed appropriate programmes, services and facilities through its following unts:

- * Assessment Clinic
- * Restorative Surgery Jnic

- * Disabled Hostel
- * Orthotic & Frost letic alt
- * Physiotherapy and Occupational Therapy Unit.
- * Psychology, Vocational ' Social Counselling Unit.
- * Polio Immunisation programme.
- " X'Ray & Pathology Unit
- * Photography Unit
- * Library & Documentation Centre
- * Medical Service circul r
- * E.M.G.
- * Computer
- * Diapulse

The Institute in last few years has developed specialised services for:

- * Spinal Cord injured (SCI)
- * Spinal deformities
- * Post Polio Syndrome
- * Amputee
- * Cerebral Palsy
- * Arthritis
- * Congenital conditions leading to locomotor disability.

The treatment is provided first in those within the income group of \$5.1200/- per trich. Free aids and appliances are provided to patamis having monthly income of less than \$5.1200/- per trick only 50% of the cost is charged from patients in the income group of \$5.1200/- to \$6.2500/-.

TRAINING PRUGRALLIES

For the purpose of real run one of its swher objectives of manpower develo at in the field of locomotor disabled NIOH consuc.

- Bachelor of Physiotherany, a alieted to the University of Calcutta.
- Bachelor of Occupational Parrely, affiliated to the University of Calcutta.
- 3. Diploma in Prostnetic & October Engineering, recognised by Rehabilitation Council, Government of India.
- 4. Diploma in Physiotheraph, recognised by Govt.of India.
- 5. Diploma in Occupational Therry, recognised by Govt. of India.

Short term orientation core, are organised for professionals to update their resulting with latest developments in the field.

Institute also conducts seminars, workshops, symposiums and group discussiums regularly and these are open to the professionals working in Govt. and Non-Govt. Organisation. All these together duve created an excellent supportive environment for the condicapped who will begin their journey for thousand males by beginning the first step here.

Polio Clinic on every Friday to 11 A.M.

General Counselling Clinic on , ry

Tuesday and rednesday. 11 A.M. to 1 F.M. - 2P.M. to 4P.M.

Special Clinic on every Thursday 2.30 P.M.

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APPENDIX -- IHI .

CALCUTTA BLEAD UDICOL DurinLa, CALCUTTA .. 700 034

Shah in 1894 in order to used the cause of the sightless in the society. This is a sect of my school which criters equal opportunity to the sightless how a large scale irrespective of control or colour. The school have classes from Kind of the the Class X. Since visually impaired children nerespectated in each class. Every year the children who a control of the Madhyamik Examination, come out successfully obtaining first division and securing very hourseless.

Besides academic classes, the institution provides facilities in music, craft, require sports activities including Scouting gaiding, Dubbing and Busbul.

The work education processive includes Book Binding, Maring of Taster, and Hanger, vine Door mats and basket making, preparing challe and candles.

A Guide competition was a ld on Integrated level on 28.2.1003. Eight sightless a gides participated and won prizes for games and shorts and stood first in cultural competition. They are and caps and shield.

Since typing is the only communicative medium of the sightless with seeing worl, a project was started in 1984 and the students of Class S VIII and IX are being trained in this line.

30-Beded Girls' Hostel is onthe point of completion and will be inaugur tod on 1.12.1903 onthe occasion of Centenary year. On the same occasion four

class rooms with two storied building is also onthe point of completion inthe centenary school building. One of these rooms will be albeed to Computer Training Programme for sightless and help three room will be utilized for music, general classroom with special apparatus for geography.

APPENDIX - IV

BUDHI PELT SCHOOL L.CFION 20, HARINATH DE ROAD, CALCULA-700009

ABOUT THE SCHOOL

Mentally Handicapped Students in west Bengal which was established in 1954. The 3c real progressed through by contributions of renouned. Acceptanists of Calcutta University. Late Mr.S.C.Bisi and Late Miss Rekha Ghosh had put in a lot hard work to 'v lop the school.

The school is now under the Sponsorship of Government of Mest Bengal sinct 1986. It is a special school for Mentally Handicapped couldren ranging from 4 years to 21 years of age.

Phe school is run by an lifted personnel and provides training and Special Laucation to all ranges of Mentally Handicapped students. odhi Peet School attempts to provide all possible means and facilities n cussary for their uptimum development.

the school has received a good deal of public encouragement from the professionals and parents of the handicapped for its activities and dedicated work with the Mentally Handicapped.

..E FROVIDE

ASSESSMENT - as an integral to fit he training programme. The students are as to d by a team of professionals prior to their to the remaining during educational and trainer to the remaining.

INDIVIDUALISAD TRAINING PROGRAM

Dach child ric aves in analized training programme in functional actual actual actual actual social skills, Freyodalagnal accusant skills and Self help.

BEHAVIOUR MODIFICATION

Very often Mentally i michigaed Children exhibit behaviour problems like aggress in, self injury, repetitive behaviour etc. The School gives in social attention to these problems.

REHEBILITATION AND INTEGRATION

The School gives speci I strention to rehabilicate its students vocationally 'socially in the Society.

MEDICAL FACILITIES

Medical Specialists at 100 the medical ailments of the students as and when records.

CREATIVITY

We give training in D-nc , D_{rema} , Music, Art ℓ Cr. ft to all our students.

CULTURAL ACTIVITIES

Our students participated and cultural activities and social functions. Our students also go for picnics and foliday Camps.

OUR BENIFICIARIES

7.

Under priviledged mentally Handicapped Fersons.

All our services are FLEE for all the students in our School.

WE PROPOSE

- To start an out ration: D. partment for individualized home-based training programmes for the children, who cannot at and school regularly.
- To start Sp ech Thorapy hysio-Therapy and occupational Therapy in school.
- To enhance our Voca and Training units.
- To start Transport Facility for all our students.
- To have a more spaceous accommodation for our School.

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APPENDIX - V

CALCUTTA DEAF SCHOOL

Calcutta Deaf 3chool was established in the year 1893 at 293 A.P.C. Road in the heart of Calcutta city. It is a residential school for hearing impaired children. The school is open for both boys and girls from the age group of 3+ to 15 years. The medium of instruction is both Bengali and Hindi. At present about 1000 hearing impaired children are reading in the school.

The children are taught by oral and aural method.

The classes are filled with powerful group hearing

aids and loop induction hearing aids.

The school follows the prescribed syllabus meant for the normal hearing children. The syllabus is adopted and adjusted whereever necessary. Along with the academic activities, the school provide prevocational guidance like blacksmith, tailoring, clay modeling, printing, cutting and binding, wood work and embroidery to the children. These vocational services help them for their self employment at the end of their schooling.

There is one Training College for the Teachers' of the Deaf attached to the school. The school works as a demonstration/practising unit for the practising teachers. The parents and inservice teachers are trained in this College.

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APIENDIX - VI

MADRAS DEVELOPMENTAL PROGRAMMING SYSTEM

The Madras developmental programming System's (MDPS) Behavioural scales are designed to provide information about the functional skills of the mintally retarded persons for purposes of individualized programme planning. The scales contain 360 items grouped under 18 functional domains. As an aid to programme planning, the items under each domain are developmentally sequenced along a dependence/indepentance continuom. The scales are designed to collect information about the retarded person by those people who have an interest in the life of the retarded person.

INSTRUCTIONS:

Read the instructions all the way through before beginning the assessment.

In order to use the madras Developmental Programming System for behavioural assessment the following materials are necessary:

- 1. this booklet, containing the behavioural scales and instructions.
- 2. the behavioural profile form.
- 3. ABAK daptive Behavioural Assessment Kit in the profile ____.
- Complete the identifying information.
- Mark 'A' or 'B' as per instruction for the initial assessment. Coint and enter the total a number of 'A's and 'B's.
- For the initial assessment and the first, second, third and fourth quarter evaluations follow the markings as indicated in the profile.

Assess the person keeping 'h. following points in mind.

* If the person can purform the behaviour, mark 'A'.

- * If no additional training is required for the person to perform the lehaviour mark 'A'.
- * If the behaviour is too simple and consequently inappropriate mark 'a'.
- Example: Offers little or no resistance while being washed.

A person who is a le to wash himself would be marked 'A' for this item.

- * If the person cannot perform the behaviour, Mark 'B'.
- * If additional training is required for the person to perform the behaviour Mark 'B'.
- * If the person cannot perform the behaviour due to physical handicap or absolutely had no opportunity to perform the behaviour mark 'B'.
- Example: Travels by public but to and from any destination. A person who lives in an area without public transportation would be marked 'B' for this item.
- * Observe the behaviour directly or consult with some one who has observed. Assessment is based on direct observation-yours or some one else's.

 Most of the behaviours will occur in routine daily life where you, can easily observe.

However, some behaviours will not take place where you can see them. Them you must either:

Consult with oth r pool le such as a teacher, employer, parent, doe or or social worker who may have directly observed the person's behaviour in another setting, or if all else fails.

- * Do not read between one lines or make quesses.

 Lach item means only what it says.
- Example: Sits quitely at a tella for two minutes. This means that the person sits at any table and acts in a quite way for two minutes. The person may be doing some other activity at the same time, such as reading, playing a game or eating. The item does not limit the activity to just sitting nor does the item specify the kind of table.

* Do not give assistance unless so stated.

Example: Selects correct sizes and styles of clothing at a store.

The person must scl ct the clothing without assistance to be marked 'A'.

* If there is no possibility to observe certain behaviours in natural setting, then you may a setting. However, salation is permitted only for items in the following scales:

Scale 1, Gross ..tor

Scale 2, Fine Notor

Scale 3, Grooming

Scale 8, Expressive Language

Scale 10, Reading

Scale 11, Writing

Scale 12, Numbers

Scale 13, Time

Scale 14, Money

Scale 18, Vocational

MDPS - BEHAVIOUR L SCALES

1 GROSS MOTOR JLV_LOIMENT

- 1. Holds head erect wher in sitting or standing position (body may be supported by a person or prop).
- 2. Holds head up for 5 seconds when lying on stomach.
- Sits without support.
- 4. Rolls over on flat Jurface from back to stomach or stomach to back.
- 5. Moves from lying on stomach to sitting position.
- 6. Creeps or crawls about a room containing furnitures and/or other people.
- Pulls self to standing position using person or prop for support.
- 8. Stands unsupported.

- 9. Walks 5 feet (May us '.races or crutches).
- 10. Crawls forward and backvard.
- 11. Walks upstairs and downstairs putin both feet on each step (may use wall or handrail for support).
- 12. Walks a straight line for 10 feet.
- 13. Pushes or pulls a wagon-type object while walking 10 feet.
- 14. Runs.
- 15. Squats.
- 16. Walks upstairs and downstairs, alternating feet (may use wall or mandrail for support.)
- 17. Jumps up, both fe t off the
- 18. Climbs up and down a
- 19. Stands on tip toe for 10 seconds.
- 20. Rides a bicycle (without training wheels) for 30 seconds/swims.

2. FINE MOTOR DIV_LOPMENT

- Closes hand around an object placed in hand.
- Reaches for and grasp; objects.
- 3. Use both hands at the same time when handling an onject.
- 4. Pick up small objects using thumb and fingers only.
- Carries a paper cup without crushing, tipping or spilling.
- 6. Turns a door-knob and opens the door.
- 7. Makes a stack of 3 c.ns, or tiffin carrier or wooden blocks.
- 8. Uses spoon to stir frod or drink.
- 9. Strings three one-inch beads or spool on to a string.
- 10. Unscrews a jar or bottle lid.

- 11. Pours liquid from a pitcher into another container without spilling.
- 12. Tears off a perforat d sneet.
- 13. Cuts with in 1/8 inch of a straight line drawn on paper using scissoes.
- 14. Places a key in a lock and opens the lock.
- 15. Cuts out a carcle wath in 1/8 inch of a line drawn on paper using scissors.
- 16. Folds a letter to fit an envelope and inserts letter into envelope.
- 17. Seals envelope with leter enclose' and puts on a stamp.
- 18. Uses a screw driver to insert or remove screws.
- 20. Threads a medium sizid scwing needle within 2 tries.

3. EATING

- Swallows soft foods :: at do not require chewing.
- Drinks, without spilling, from a glass or cup with assistance.
- Ficks up food with fingers and puts food in months.
- 4. Uses spoon/hand to pick up and eat food (need not to skillfull).
- 5. Chews solid food.
- 6. Picks up a glass and rinks from it without spilling.
- 7. (Eat a complete mea with little or no spilling (may use only fingers and spoon).
- 8. Drinks from a drinking water tap using hand.
- 9. Use fingers to pick up and eat food.
- 10. Waits in line and carries a tray in a dining facility.

- 11. Eats, supervised in outlic without calling attention to eating behaviour.
- 12. Eats Idli/Dosai/Puri/Roti (Uses fingers to meal bits).
- 13. Eats a complete meal with little or no spilling using all normal dish sandtensils.
- 14. Eats porridge/payasam from a plate using spoon or fingers.
- 15. Takes proper portions when food is offered.
- 16. Displays table manners such a politely asking for food to be passud.
- 17. Serves self in a family-style setting.
- 18. Selects and requests food from a limited menu by telling choice to person responsible for delivery.
- 19. Selects a nutritious and complete meal when variety of foods are available.
- 20. Orders and eats in public dining facility.

4. DRLSSING

- Offers little or no resistance while being dressed and undressed.
- 2. Extends and withdraws orms and legs while being dressed and undressed.
- demoves slip-over shirt.
- 4. Removes socks, und recuts, unzips outer pents and unbuttons shirt dress.
- 5. Undresses self com louely (may need help with belt or bra).
- 6. Puts on underpants, slip-over shirt or dress outer pants and socks.
- 7. Puts on jacket/Kurta (nned not fasten).
- 8. Unzips clothing with front zippers.
- 9. Dresses self completely except for fastenings such as butterns, zin ws, ties, or hooks.

- 10. Puts shoes on correct feet.
- 11. Buttons clothing.
- 12. Starts and closes a front zipper.
- 13. Ties a bow knot in saw laces.
- 14. Laces shoes with a l ce in each eyelet.
- 15. Puts on and takes off higs, scarves, belts, watches or jeweller.
- 16. Puts on outer were without reminder in response to cold or rain.
- 17. Selects clothing for sersonal and weather conditions and differ nt occasions.
- 18. Selects correct size, type and style of clothing at a store.
- 19. Wears Dhoti (Half Baree/lungi).
- 20. Wears Dhiti/Sar e an ! Manajes the wholeday.

5 GROUMILC

- 1. Offers little or no resistance while being washed.
- Turns head and excends hands while being washed.
- 3. Puts hands under running water for washing.
- 4. Dries or blots hands with a towel.
- 5. Begins brushing motion for cleaning teeth.
- 6. Wipes face with a wet wash-cloth including forehead, cheeks, nos. and chin.
- Wipes nose with an arm, hand, when nose is running.
- 8. Soaps and rinses ounds.
- 9. Bathes in a tap or chower.
- 10. Runs a comb or brush through hair with several strokes.
- 11. Blows nose in a handkurchief.
- 12. Soaps and rinses arms and upper body.
- 13. Uses tooth-paste or tooth powder, brushes teeth and rinses mouth.
- 14. Dries entire body with a towel after bathing.

- 15. Applies powder/deodorant.
- 16. Jashes, rinses and dries hair.
- 17. Grooms hair includin, washing, drying, combing and curling (if appropriate).
- 18. "aintains self-clean, odor-free and groomed.
- 19. Cleans and clips finger nails with a nail clipper.
- 20. Shaves (male)/manage: Guring menstrual period(female).

6. TOILIPING

- 1. Stays dry for two hours.
- Sits on the toilet for 30 seconds.
- Uliminates when on th toilet (bowel or bladder)
- 4. Removes clothing bafo, sitting onthe toilet.
- 5. Goes to the bathroom with a reminder.
- 6. Has bowel control at moht.
- 7. Has bowel control.
- 8. Replaces clothing be and leaving the bathroom.
- 9. Removes clothing, sime on the torlet and eliminates and replaces clothing.
- 10. das bowel and bladl r control.
- 11. Indicates by gestures or words when needing to use the toilet.
- 12. Goes to the bathroom sudependently.
- 13. Uses only a urinal or totalet for urination.
- 14. Flushes the toilet after use.
- 15. Obtains help with ou toileting problem.
- Cleans self using water.
- 17. Asks the location of he bathroom in new situations.
- 18. Closes door of bathro m for normal privacy in toileting.
- 19. Wash s and dries hands after toileting.
- 20. Cohhoes the correct rist room in a public place.

7. RECEPTIVE LANGUAGE

- 1. Turns head towards to source of a sound.
- Responds by eye consider or verbal acknowledgement when name is call.i.
- 3. Responds to the instruction, "Look at me" with 2 seconds of eye contact.
- 4. Obets simple instructions such as, "Come here".
- 5. Performs the appropri 's action when the word "me" is used such as 'Civo mo the ball".
- 6. Stops an activity upon request such as "N" or "stop".
- 7. Sits quietely for 3 minutes while a story is being read.
- 8. Follows prepositions such as "put the bell in box" or 'put the broom behind the door'.
- 9. Responds to non verbal communications from others such as frowning, crying, smiling, etc., by returning the gesture or jiving an appropriate verbal response.
- 10. Points to many common objects such as ball, spoon, etc.
- 11. Points to pictured objects in a book upon request.
- 12. Points to 10 body parts such as nos, eyes, mouth, etc., upon request.
- 13. Follows two-step direct; ons in order such as, "Get the ball and close the door".
- 14. Points to large and small objects upon requist.
- 15. Identifies 3 colours of a group of colours when asked, which colour is blue ? red ? etc."
- 16. Follows three-step directions such as "stand-up, open the book and move the chair".
- 17. Follows verbal direct and to get from building to building in a familiar setting.
- 18. After listening to a inquago story answers "Yes or "No" to specific questions about it. .
- 19. After listening to a one page story, answers questions a out it such as "What happened first to .am'?
- 20. Summarises a TV/:adjo rogramme in oun words.

8. EXPRESSIVE LANGUAGE

- 1. Makes voice sounds.
- Uses voice sounds to ,ct attention.
- 3. Changes the tone and rhythm of voice sounds.
- 4. Says or indicates, "Fes or No" in response to questions.
- 5. Imitates five words heard either singularly or all at once.
- 6. Uses two-word phrases such as, "Hello, Friend", "Go out" or "Eat biscrit".
- 7. Says 20 words.
- 8. Names 10 common objects when asked, What is this"?
- Says first and last name when asked.
- 10. Names 10 body parts with ask, "What is this"?
- 11. Uses phrases of four ords.
- 12. Expresses feelings, d. sires or problems in complete sentences(Sanject-verb) such as "I am hungry".
- 13. Asks simple questions such as, "What is this" or "Why can can't I "?
- 14. Uses pronouns such as 'I, you, he, her, me or mine" in a complete sen cace.
- 15. Speaks in phrases or sentences clearly enough to be understood by some one not familiar with the person.
- 16. Uses two-part sent accessuch as, "I saw Ram and I asked him to help me'.
- 17. Carries on a conversation with another person(s) for 10 minutes.
- 18. Says address if resid ace clearly when asked.
- 19. Describes past events in a logical order.
- 20. Tells jokes.

9. SOCIAL INTLR.CTION

- Reacts when touched by reaching towards or moving away.
- 2. Looks toward or otherwise indicates a person in the immediate area.
- Follows a person with eyes or otherwise responds to a person moving.
- Spends time alone with toys or objects for 2 minutes.
- 5. Imitates arm movement such as clapping hands or writ waving good bye.
- 6. Spends 5 minutes inceraction with one or two other persons.
- 7. Waits for turn in a grasp.
- 8. Identifies friends and acquaintances from strangers.
- 9. Spends 10 minutes interacting with one or two other persons sitting at a table.
- 10. Follows directions from others.
- 11. Waits for 2 minutes for an object wanted.
- 12. Greets others upon mouting either verbally or with non-verbal fri ndly gestures.
- 13. Appears comfortable with members of the opposite sex in social situations.
- 14. Participates ac-tively in social events by engaging in the same activity as the other members of the group.
- 15. Says "Please" and "Thonk you".
- 16. Shares possessions with others.
- 17. Responds with a to proper social courtesies such as greetings, apologics or compliments.
- 18. Uses things that below, to someone else only with their permission.
- 19. Invited others to participates in an activity such as going for a walk or going to a movie.
- 20. Receives and makes local phone calls without assistance.

10. LEADING SELLY KIADING

- Sits quetly at a table for 2 minutes.
- Looks at objects presented when seated at a table.
- 3. Turns the pages of a book one at a time.
- 4. Foints to 5 common objects when objects are named.
- 5. Identifies different counds, such as bell ringing, hands clapping, whispering, keys jingling.
- 6. Sorts 3 objects by snape.
- 7. Identifies 3 primary colours by naming them when an object of that colour is presented.
- 8. Sorts pictures of similar and/or familiar objects into the same category, such as animals, people, vehicles.
- 9. Follows printed most rial left to right.
- 10. Selects I printed led r from 3 when it is different such as "b, t, b".
- 11. Reads out common words with 3 letters.
- 12. After seeing pairs of words such as "pat, pen" or "cat cat" identifies which pairs are the same.
- 13. Identifies/Reads alphabets from A to Z (may look at letters).
- 14. When shown 5 pictures arranged to tell a story and then mixed up, arranges them again in sequence.
- 15. Reads the following words when when shown on flash cards: "Stop, men, women, danger, poison, exit".
- 16. Reads aloud sentences with 5 common words.
- 17. Reads a simple sen inc and answers questions about it.
- 18. Reads a story to others.
- 19. Reads for information or entertainment.
- 20. Reads a simple story silently and states its main idea.

11. WRITING

- Graspes chalk, pencil or crayon.
- 2. Scribbles with chalk, pancil or crayon.
- 3. Grasps chalk, pencil or crayon with thumb, inded finger and middle finger.
- 4. Imitates someone moving hand from left to right across a page.
- 5. Marks on a chalk-boord or paper in circles and lines.
- Traces with pencil or crayon along a three inch straight line with 1/3 inch tolerance on either side.
- 7. Trace with pencil or crayon around the outside of a six-inch circular of ject in a continuous motion.
- 8. Copies with a pencil three-inch straight line with 1/8 inch tolerance on either side.
- 9. Draws an X with an example to look at.
- 10. Draws a circle with no example to look at.
- 11. Draws a line connecting 3 dots on a piece of paper.
- 12. Copies upper and lower case alphabets with examples to look at.
- 13. Writes or prints first and last name with no example to look at.
- 14. Writes or printes legibly (readably).
- 15. Stays on the lines when printing or writing.
- 16. Copies a printed scheence legibly including all the punctuations and capital letters.
- 17. Copies a paragraph leably on to an 8-1/2 by 11 inch sheet of lined oper writing on the lines.
- Writes or prints dictated words.
- 19. Writes or prints dict and sentences legibly, including capitalisa. In and punctuations.
- 20. Writes or printe: personal letters for mailing using legible hand riting in an informal letter style.

12 NUMBERS

- Separates one objects one object from a group upon the request, "give me one block", etc.
- Creates order out of a group of objects by lining up, stacking, or placen them in some other name ern.

- Repeats 2 numbers in the order given.
- Points to the short or long linewhen asked.
- 5. Chooses the correct number of objects upto 5 upon request "Give me one block etc."
- 6. Counts to 10.
- 7. Indicates the difference between "more" and "less" when shown two different sized groups of objects.
- 8. Matches equal numbers, uoto 5, of different kinds of objects such as 2 iscuits with 2 shoes.
- 9. Name the printed name: r symbols 1 through 10.
- 10. Follows directions to fill a grass half full.
- 11. Repeats 5 single-digit numbers in the order given .
- 12. Places the printed number symbols 1 through 10 in order.
- 13. Prints the number symbol 1 through 10.
- 14. Counts from 10 to 20.
- 15. Matches the printed number symbols 1 through 10 with the correct number of objects.
- 16. Adds single digit numbers with sums upto 10 such as 7 + 2, 2 + 1 or 3 + 0.
- 17. Prints the number symbols from 1 to 100 in order.
- 18. Substracts single dig t numbers upto 10 such as 9-1, 3-1, or 5-3.
- 19. Uses the concert of carrying in addition and borrowing in substruction.
- 20. Multiplies and divides single and double digit

13 PIME

- 1. Associates the time of the day with activities such as meals or believe.
- 2. Responds to "now", '1 cor", "hurry" and "wait" .
- 3. Answers correctly when asked, "Is it day or night" ?
- 4. Answers correctly when asked, "Is it morning or afternoon"?
- 5. Indicates own age vocally, with fingers or by writing.
- Understands the diff rence between yesterday, today and tomorrow.

- 7. Names or identifies the 7 days of the week.
- 8. Answers correctly when asked "What day of the week is today"?
- 9. Names or identifies on numbers on the clock.
- 10. Names or identifies the seasons of the year.
- 11. Names or identifies . . 12 months of the year.
- 12. Answers correctly when usked "What month and year is it now"?
- 13. Tells or identifics '. . . th-date, month, day nd year.
- 14. Indicates the passage of 5 minutes on a clock.
- 15. Sets a clock to within one hour of the correct time after hearing the correct time.
- 16. Indicates the passa. If 5 minutes, give or take 2 minutes, without the use of the clock.
- 17. Tells time to the minute on a clock or watch.
- 18. Sats a clock or witch to within one minute of the correct time after horing the correct time.
- 19. Meets a particular so couled bus.
- 20. Arrives on time for an appointment made one week in advance.

14. NULLY

- Sort coins from other small metal objects.
- Uses money to buy two s(might not use correct amount).
- Selects a rupee not from other paper objects.
- 4. Sorts mixed coins into groups of 5p., 10p., 20p., 25p., 50p., re. 1 ant ...2.
- 5. Selects 5p., 10p., 25p., and 50p., coins from a group of coins.
- 6. Saves money such as in a 'Piggy Bank" (Money Box)
- 7. Identifies 1,2,5, and 10 Rupers notes by naming them when asked.
- 8. Rank orders, 5p., 10p., 20p., 25p., and 50 p., coins in order of value.
- 9. Exchange 5p., coins for a 50 paise coin.
- 10. Makes purchases at local stores.

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- 11. Excanges 5, 10 paise coins for one rupee.
- 12. Exchange 25 paise coins for Re.1.
- 13. Exchanges the correct number of mixed coins for 25 paise.
- 14. Exchanges the correct number of mixed coins for 50 p.
- 15. Exchanges the correct number of mixed coins for 1 rupee.
- 16. Saves money in a bank account.
- 17. Counts the change from a purchase of 1 rupee or less.
- 18. Gives an adequate amount of money for purchases over 1 rupee and cannus the change.
- 19. Counts the change from a purchase of 5 rupees or less.
- 20. Uses a checking account.

15. DOMESTIC BELLAVIOUR

- 1. Picks up household trash or litter and places it in a waste baskat upon request.
- 2. Puts away personal items in the proper location upon request.
- 3. Puts dirty clothing and clean clothing in the appropriate places.
- 4. "akes bed.
- 5. Damp-wipus a kitchen of classroom table.
- 6. Folds clothing and m'g it away in a drawer.
- 7. Dusts a floor with a dust cleaner .
- 8. Scops a floor with a broom, picks up sweepings in a dust pan and the bits the pan.
- Dusts furniture, leaving no dust on flat surfaces.
- 10. Sits a table for lunch (need not be a formal setting).
- Washes and drice dishus by hand.
- 12. Wet mops a floor.
- 13. Shovels sand or rak a le ves, leaving the surface closm.
- 14. Operates a grinder, while or grinding stone.

- 15. Prepares coffee or toe.
- 16. Uses a cooker and knows when to take it off from the fire.
- 17. Buys the necessary things needed for cooking.
- Washes, dries and it ins clothes.
- 19. Does simple mending such as sewing on buttons or rejoining broken serms, using needle and thread or machine.
- Prepares and serves a meal including one hot dish.

16. COMMUNITY ORIENTATION

- 1. Finds way alone from place to place within a familiar building.
- Performs simple errands within a familiar room.
- Finds way from one milding to another in a familiar setting.
- 4. Goes to public places in a supervised group without calling unf vourable attention to behaviour.
- 5. Chooses the correct rest room in familiar public place.
- 6. Conducts self in public in the company of a puer (same age group) of the opposite six without calling attention to self.
- 7. Identifies policemen, a fireman and a bus driver.
- 8. Interacts appropriately with strangers in public.
- 9. Crosses residential screet intersections, looking in both directions and waiting for traffic to clear before crossing.
- 10. Responds appropriately to social "kidding" teasing in public.
- 11. Moves about freely in a familiar community.
- 12. Goes on foot or bicrole to a familiar place over one-half mile from residence.
- 13. Obeys lights and 'walk' "Don't walk" signals at a light controlle intersections.
- 14. Identifies a bus-stro and indicates its purpose.
- 15. Acts appropriately in all normal public situations.
- 16. Leaves an awkward public situation that is beyond control and sucks help:

- 17. Walks along a road that has no side walk.
- 18. Telephones to residence for information or assistance when necessary.
- 19. Fravels by public bus to and from any destination.

12

20. Holds a valid driver's licance.

17 RECREATION, LEISURE TIME ACTIVITIES

- 1. Angages in a leigure-time activity for 5 minutes when materials are set up.
- Boundes, throws or catches a ball .
- 3. Watches T.V. without disturbing others.
- 4. Finger paints.
- 5. Brush paints.
- 6. Participates in group singing or dancing.
- 7. Participtes in the octavities of the community without disturbing och rs.
- 8. Plays simple table gam s with others.
- 9. Puts together puzzel, of 6 pieces.
- 10. Watches TV or listens to the radio by selecting a station turning on and off etc.
- 11. Participates in 3 oucdoor activities, such as swimming, biking or gardening.
- 12. Does arts and crafts such as clay work, leather work or bead work.
- 13. Uses a canteen, park, Library, etc.
- 14. Partidpates in organisations such as scouting or any clubs.
- 15. Initiates self-involvement in a hobby not including reading or watching TV.
- 16. Does gardening. .
- 17. Participates in organised team sports such as cricket, basket ball, or volley ball.
- 18. Uses community recreation facilities for recreation, I leisure time activities.
- 19. Selects books from library for personal reading.
- 20. Plays & musical instrument.

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18. VOCATIONAL

- Assumes a body position at a task or at play such that both hands are available for use.
- Participates ina single activity for 10 minutes (if protected from interription).
- Attends to a single octivity in a room with people.
- 4. Assembles two-part objects that fit together in a simple but secur, way.
- 5. Attends to an assigned task or activity for one-half hour (may need to be encouraged).
- 6. Attempts to do an assigned task without resistance.
- 7. Puts away own tools and materials at the end of a task (May need a reminder upto one-half of the time).
- 8. Tosses hand_sized objects into an open box or waste basket at a distance of 3 feet.
- 9. Stops a task when it is done.
- 10. Attends to work while in a group without distraction others.
- 11. Changes activity with at showing discomfort. when assigned from one cask to a different task.
- 12. Goes to an assigned area without reminder in a routing daily programme.
- 13. Undertakes and completes a task in order to receive money.
- 14. Indicates if own performance meets the standards set for an ac-tivity (chese standards may be very low).
- 15. Uses a hammer to pound, pliers to grasp and screw driver to turn (need not be skillful).
- 16. Increases speed of work when told to do so.
- 17. Arises and leaves from residence so as to reach work or activity on time.
- 18. Assembles objects with 5 part that must be put together in a particular order.
- 19. Uses public transportation on one local ruite such as from residence to work and back.
- 20. Operates power hand tools such as a drill or food mixer without a spervisor. present.